THE BUILDER
A JOURNAL FOR THE ARCHITECT & CONSTRUCTOR

VOL. CXL. MAY 8, 1931. No. 4605.

ROYAL ACADEMY EXHIBITION, 1931.

A House at Biarritz: Facade towards the Sea.

MR. OLIVER HILL, F.R.I.B.A., Architect.

MEETINGS

FRIDAY, *May* 8.

Royal Institution. Mr. G. W. C. Kaye on "Measurement of Noise." 8 p.m.

Institution of Structural Engineers (South Wales Branch). Mr. F. E. Drury on "The Structural Engineer and his Vocational Training."

Institution of Electrical Engineers (Scottish Centre). Professor W. Cramp on "The Birth of Electrical Engineering." At Dundee. 7.30 p.m.

FRIDAY-SATURDAY, *May* 8-9.

Institution of Municipal and County Engineers. N.W. District Meeting. At Town Hall, Victoria-street, Morecambe and Heysham. 11 a.m., May 8.

SATURDAY, *May* 9.

L.C.C. Central School of Arts and Crafts. Visit to Messrs. Dorman, Long & Co.'s Works, Nine Elms. 2 p.m.

MONDAY, *May* 11.

University of London. Mr. K. Clark on "Study of Art History." At University College, W.C.1. 4 p.m.

TUESDAY, *May* 12.

Chartered Surveyors' Institution (London South-Western Branch). Mr. C. H. Price on "The History of the Port of London." 5.30 p.m.

Architecture Club. Nineteenth Dinner. At the Savoy Hotel. 7.30 p.m.

Institution of Civil Engineers. Annual General Meeting. 6 p.m.

WEDNESDAY, *May* 13.

Royal Society of Arts. Major R. A. B. Smith on "Architecture in Concrete on the Pacific Coast." 8 p.m.

Architectural Association. Mr. W. E. A. Bull on "Valuations: Building Schemes." II. 5.30 p.m.

THURSDAY, *May* 14.

Society of Antiquaries. Ordinary Meeting. 8.30 p.m.

FRIDAY, *May* 15.

Town Planning Institute. Messrs. T. Adams, W. R. Davidge, H. V. Lanchester, and Professor S. D. Adshead on "London as it ought to be." 6 p.m.

Society for the Protection of Ancient Buildings. Annual General Meeting, and an address by Dr. D. C. MacColl. At the Carpenters' Hall, E.C. 4.30 p.m.

SATURDAY, *May* 16.

Hampshire and Isle of Wight Architectural Association. Annual General Meeting. At Winchester, 3 p.m.

Institution of Municipal and County Engineers. Southern District Meeting. At the Town Hall, Cheltenham. 10.30 a.m.

MONDAY, *May* 18.

Architectural Association. Mr. F. R. Yerbury on "The Architectural Association, 1847-1931." 8 p.m.

TUESDAY, *May* 19.

London Society. Annual Dinner. At the Hotel Victoria, W.C.2. 7.45 p.m.

Models of Portions of a Frieze for the Saville Theatre, London.

Mr. Gilbert Bayes, F.R.B.S., Sculptor. Messrs. T. P. Bennett, F.R.I.B.A., & Son, Architects.

Royal Academy Exhibition, 1931.

WHAT IS THE ACADEMY?

A GOOD deal of criticism which the Royal Academy, in common with most important public bodies, has to suffer, would be more intelligently directed if the public critics would endeavour to understand what is the true position and function of this body of eminent artists. Perhaps the chief mistake which architects in particular are inclined to make is to look upon it in its relation to architecture as a sort of catholic variant of the Royal Institute of British Architects. From this point of view the critic is inclined to think that there is no essential difference, or rather that there ought not to be any essential difference, between an exhibition of architectural drawings at the R.I.B.A. galleries and the annual exhibition in the architecture room at Burlington House.

This is not only an unfair criticism, but one which, if listened to, would seriously curtail the scope of the Academy exhibition. The R.I.B.A. and the Royal Academy of Arts are entirely different bodies, with entirely different functions and duties; and this is a fact which is too often overlooked when people seek to teach the authorities how they should behave and what they should or should not do.

In attempting to define in broad terms what these distinct bodies stand for, we do not profess to tell our readers anything which they do not already know, but to remind some of them of what they are, perhaps, liable to forget for the moment. The R.I.B.A. is a body of architects acting in unison to set a certain standard of ability in its qualified ranks, and a certain standard of professional conduct. They are united to facilitate the effective work of all able exponents of architecture, with the avowed intention of eliminating the charlatan and the inefficient. They are united to maintain the best interests of good architecture. Membership arrives out of a voluntarily set standard of ability, and not out of personal choice. By its professions, the R.I.B.A. becomes a steward of public interests, as well as a union of professional men, and its responsibilities to the public are very wide and its trusteeship important.

The Royal Academy of Arts, on the other hand, is of an entirely different character. In essence, it is mainly a social club of eminent artists, who meet together for the better enjoyment of art, and, by personal intercourse, the improvement of themselves and their fellows. Election is actually a matter of free corporate choice, and from that choice the elected should be able exponents of the arts they practise. The election of a new member to the Academy is entirely a matter for the Academy to decide upon, and no business of the public. Those are the bare facts of the case.

But things can rarely be disposed of so simply, and the fact of intense public interest in the actions of the executive cannot be written off as an intrusion into private affairs. If the Academy is all we say it is, and no more, why should the general public bother about it, and why should anyone take it upon himself to analyse the situation?

We think the answer is just this: that once a body of men get together professedly as artists, and proclaimed as such, whatever their aims in thus coming together it becomes incumbent upon them to act as artists, to preserve their ranks for artists, and to take the keenest interest in the arts not only practised by themselves, but by numbers of others outside their ranks. It is for this reason that election to the ranks of Academicians has become a high honour in the world of art, and has generally been wisely and generously administered. It is for the same reason that the young artist has come to look upon the annual exhibition at Burlington House as an opportunity of achieving honourable success.

The exhibition becomes then a sign of that reciprocal interest with which the Academician looks outwards upon the artist, and the latter inwards upon his illustrious fellow, with the general public as a benevolent and interested spectator. The exhibition, so far as it touches the world of building, must be recognised not as a collection of illustrated works acknowledged by the architectural world as supreme of the times, but as a collection of illustrations representing what a certain body of artists (not all of them architects) consider should be exhibited to the public as the manner in which art is best expressed at the present time by the means of building. Such a recognition will help us to bear with patience those instances where skill in draughtsmanship has born a disproportionate degree of favour in selection, and more still with those rejections which as architects, purely, we have often felt should have found their place in the show.

Possibly, also, we may feel some element of incongruity in the recent policy which determined that the architectura exhibit shall be portrayed for the most part by the technica presentation means of plan and elevation by which the architect achieves the effects of mass and proportion which delight the enlightened public. One may wonder whether such a policy does not tend to estrange public and lay interest, and mark down the show as one for the enlightened technician only. What we feel should be aimed at is an exhibition which fills the mind of the observer not with a sense of skilled brushwork and delicate line, but with conceptions of mass, proportion, light, and shade and skyline. We see no more likelihood of achieving this with the tee-square and set square than with the centrolinead, unless the real architectural sense permeates the exhibition and the minds of its promoters. The "smudge and wash" perspective did little for the cause of presentation, but neither will the "smudge and wash" elevation. What is really wanted is the humble presentation of sublime facts, if the visitor to the architectural gallery is to learn thereby anything about architecture. The craft of draughtsmanship must subordinate itself to the cause of fine architecture, if the architectural exhibition is to preserve its distinct individuality.

We should be sorry to check a sincere experiment before it has run its course, and we shall watch with interest the results which follow the recent experiment. We feel, however, that something more should be done to reinstate that more studious exercise of perspective science with which the old Georgian textbooks are filled. There we see cornices, not as the artist thinks they will probably read, but as science tells us they will actually reach the eye. The result is very different from those of the landscape artist, but the objects of the work are equally distinct and must therefore differ.

In this connection we may take this opportunity of warning the profession against another danger from which the new ordinance has not protected it. We have, for the time being, at any rate, seen the last of the "splash and daub" perspective. Have we seen more than the beginning of the "splash and daub" elevation, which can be tricked up just as effectively, and just as deceptively as the other? Things have not reached an extravagant pass on these lines, but we have seen just the minutest signs that a parasitic profession is tiptoe to serve the new order. This would, indeed, be a sorry jest if out of the self-denying disregard for perspective trickery, which was not a trickery of drawing so much as of brushwork, the more conventional form of orthography should make the framework for the same deceit. But we imagine that the profession will prove too sensible to fall into such an obvious ditch.

The growth of such tendencies is so insidious, however, that it seems well to mark them now, rather than wait for their roots to grow tough.

This year's Exhibition is now upon us and the extent or otherwise of our fears can be considered. We trust that the profession generally will interest itself in the show, and help to make the maintenance of a high and sound standard of architectural display a matter so insistent that the Academy itself will feel its duty all the more keenly. The architectural strength of the body grows in personnel, and it will surely develop equally in a more intimate sense.

We shall in time find the Royal Academy of Arts taking its true place in the scheme of society, as true mentors upon all matters in art, not omitting those firm lines of demarcation which mark down architecture as a thing wide apart from the other arts, and yet linked with all of them most firmly.

Mr. Gilbert Hayes, F.R.B.S., Sculptor. Messrs. T. P. Bennett, F.R.I.B.A., & Son, Architects.

NOTES

Flats.

In view of the great and continuous development of residential flats, it is interesting to note what was said at the Royal Institute of British Architects' meeting on April 13, on the philosophy and economy of the widely extended life in flats. There are two great divisions of people who live in flats. There are many who can please themselves, but there are many who cannot, even amongst those who cannot be said to be poorly off. Amongst the latter the matter resolves itself into a choice between difficulties, and the balance of advantage even amongst those who are fairly well off seems to leave the balance of advantage to those who live in flats. Mr. Wornum, in the close of his excellent paper on the subject, quoted as follows from Anatole France. "To my mind the precision of modern houses reveals the daily function of the creatures enclosed in them as plainly as though the floors and ceilings were of glass. And all these people who live one above another, play piano one above another, and go to bed one above another in a perfectly symmetrical fashion, when one thinks of it, appear a spectacle both comical and humiliating."

Housing Failures.

There is much truth in what Sir Richard Paget said at the meeting. "English flats," he remarked, "have some decency in design, but that they solve any problem of human life I strenuously deny. You should therefore first try to make up your minds how people should live. We have a long way to go before we invent a life worth living for our rising generation. . . . I think the 'house' as it has been devised for the family is still mediæval; it does not take account of the greater part of the knowledge which has been accumulating as to what is good for the human race. There is no sign of facilities for sun-bathing, the bathroom in particular is not placed in the sun. Nature intended that air, light and water should go together. Therefore there is an enormous opportunity for freshness of outlook, making up your mind what is the proper life and what is necessary for the man, for his health and for making his life decent and happy."

Town Planning and Slums.

The attempt to do things in a large and comprehensive way is what Dr. Raymond Unwin wisely insists on. Town planning has been specifically marked down as an essential for consideration in the Charing Cross problem, and here again in the matter of flats it comes up. Dr. Unwin, in speaking of the fine work done by the L.C.C. in favour of flats, says it would be infinitely better and would lead to better results if they could handle the problem through the planning of the whole area and take the re-housing of the people in the slums as part of our much larger problem, that of improving the town. It is a disgrace to our civilisation that we have so long allowed the survival of these out-of-date dwellings, which are unfit for any decent family to be brought up in, to remain in our towns. Town planning must be the basis.

Higher Buildings.

We suppose that continual effort for commercial prosperity will inevitably make itself felt in the building world, and it has only to be proved how much more profitable high buildings are than low ones to force the hands of our authorities more continually on the concession for buildings higher and yet higher. Whilst the exploiting of a city chiefly for the purposes of personal profit is to be admitted as a reasonable and proper object, we shall have to proceed further and still further towards the crowding of large numbers of our people on to smaller areas of land and carry on the still further congestion of our streets. Do we imagine what is to be the limit of all this? We surely can hardly see a limit, and our ideals of city life and beauty may even go down before the march of progress.

Rural "Crown Jewels."

The fourth annual meeting of the Council for the Preservation of Rural England took place on April 29 at the Chartered Surveyors' Institution. The outstanding feature of the proceedings was the stirring and eloquent plea made by Mr. G. K. Chesterton for the cherishing of the English village, and of that very English item in its composition—the English inn. With particularly strong conviction, due to his recent visit to America, the speaker emphasised the unique character of "that very ancient European and Christian thing—the village"—so generally taken for granted that there is grave danger of our villages being engulfed in the "universal desert" of disfigurement and bad building before the danger is fully realised. The defence of the English village, as Mr. Chesterton described it, makes an appeal to varied temperaments and mentalities, whether as an irreplaceable "miraculous relic," as a "frontier" to maintain, or as the "Crown Jewels." Lord Crawford, the President of the C.P.R.E., voiced the sentiments of all

From the Architecture Club Exhibition.

Portmeirion, Merionethshire: Campanile and "Government House."

Mr. Clough Williams-Ellis, F.R.I.B.A., Architect.

From the Architecture Club Exhibition.

"Maryland," Hurtwood, Surrey: Blue Mosaic Pool.

MR. OLIVER HILL, F.R.I.B.A., Architect.

his hearers when, at the conclusion of the meeting, he said that all who love this country would wish that the speech could be heard all over England. If the eloquence of that appeal and the urgency of the whole question of rural preservation could but penetrate into the consciousness of the nation as a whole, there would surely be no cause for anxiety lest the exiguity of the Council's finances and the apathy of individuals should hamper the work.

The Human Side.

As Professor Abercrombie pointed out, it was pleasant to have some stress laid on the "human side" of the aims of the C.P.R.E. Many people still think the Council's work is limited to preserving the untouched natural landscape, whereas the preservation of the countryside includes good and suitable rural buildings and "the human village." Moreover the Council regards the promotion of good new buildings as of parallel importance to the safeguarding of natural beauty spots. For four years the C.P.R.E. has proceeded steadily in co-ordinating the efforts of specialist societies and in stimulating legislation in defence of rural amenities, and perhaps, above all, in pursuing that important part of its aim, the education of public opinion.

"Thoughts about Building."

WE give on p. 849 the thoughtful paper which Mr. M. H. Baillie-Scott recently read before the Birmingham Architectural Association, and from it we take the following, which may be regarded as pertinent criticism of modern tendencies:—It was a mad world, and seemed to get madder every day. We had drifted from all the old anchorages which helped us to ride the world's troubled waters in peace and security, and cut up the country with great roads for our feverish and restless peregrinations. . . . Of this new age, Mammon, renamed Economics, was God, the machine was his faithful henchman and man his willing slave. In obedience to economic law, with the help of the machine, we were flinging away the labour we delighted in, which, as Macbeth says, physics pain, and, having done so, we were pained and surprised at the rising ranks of the unemployed. Supplanted by uncontrolled machinery, the right hand of the craftsman was losing its cunning, and all the joy of happy human work was disappearing. We seemed to have fallen under a curse akin to that of Midas. The more we produced, the more desperate did our situation become. It was in such a world as this that architects were invited to express in their work the spirit of the age. He confessed, for one, he felt under no obligation to do so. He would rather give expression to the fact that there were still some at least amongst us who preferred to seek inspiration in nature and the old masters of the building art.

The Unattached Architect.

OUR readers should note that an advertisement is published in this issue of *The Builder* under "Public Notices" (p. cxxvii) asking architects and senior assistants who are competent to practise as architects and who are unattached to any society to communicate with the firm of solicitors, Messrs. Waterhouse & Co., of Bishopsgate, with a view to some information and discussion on their status and prospects under the Registration Bill. The only object of this, we understand, is to make the position of the unattached architects clear under the Bill. We understand that should there be a sufficient response a meeting will be called to discuss the matter.

Possible Census Revelations

THE recent census is likely to reveal some bad living conditions in thickly-populated areas and slum districts. We think that a large number of the modern subsidy, parlour and non-parlour type houses will be found to be occupied by small "middle-class" families and often enough young married couples, and that the overcrowding of some slum districts is almost as rife as it was a few years ago. The suggestion at a conference of delegates of the National Housing and Town Planning Council that the slums should be concentrated on appears to us to be an excellent one and more the duty of local authorities than the providing of the better-class housing schemes, however essential and necessary these might have been in the past.

From the Architecture Club Exhibition.

"Maryland," Hurtwood, Surrey: Loggia at Night.

MR. OLIVER HILL, F.R.I.B.A., Architect.

GENERAL NEWS

Professional Announcements.

On and after May 11 the new offices of Messrs. Falkner & Aylwin, at 110, West-street, Farnham (entrance in Post Office gateway), will be opened, at which address Mr. Aylwin will attend. Mr. Falkner will continue to attend at 24, West-street, Farnham. The telephone number, Farnham 787, will be for both premises.

Mr. S. B. Pritlove, architect and surveyor, has transferred his offices to No. 6, Denman-street, Piccadilly-circus, W.1. The telephone number is Gerrard 4098, as heretofore.

An Architect's Estate.

Mr. William Courtenay le Maitre, F.R.I.B.A., of Albemarle-street, W., and Lindfield, Sussex, left £22,172 (net personalty £7,964).

An Appointment.

Mr. Percy B. Haswell, assistant architect to the Durham County Council, has been appointed architect by Middlesbrough Corporation to prepare plans and designs for school buildings.

Sir C. Parsons' Estate.

Sir Charles Parsons, inventor of the marine steam turbine, who died at sea last February, has left estate valued at £810,000, with net personalty £602,434. He gave £4,000 to the North-East Coast Institution of Engineers and Shipbuilders, £3,000 to Armstrong College, Newcastle, £3,000 to the Royal Institution, and £2,000 to the British Association.

The Abbey Sacristy.

An announcement has been made in the Press that a new scheme is on foot to provide Westminster Abbey with a much-needed sacristy, which is to be formed in the western aisle of the north transept by turning the Mansfield monument which stands at the south end of the line of big memorials separating the aisle from the central space. Upon inquiry, the Dean of Westminster informed a representative of *The Builder* that there is no foundation for the report which was unauthorised.

Electrical Engineers' Golf Competition.

The fourth annual golf competition in aid of the Institution of Electrical Engineers' Benevolent Fund for the trophy presented by Messrs. W. L. Winning and Andrew Hutcheson will be held at Gleneagles on Thursday, June 11. This competition is open to Scottish Centre members of all classes, and will, as usual, be against "bogey." Liberal handicaps will be given. Members intending to take part should communicate with Mr. James Miller, 53, Pitt-street, Glasgow, C.2.

Cobden's Home, Heyshoot.

Dunford House, the home of Richard Cobden, at Heyshoot, near Midhurst, Sussex, was opened as a hostel on May 2. Mrs. Jane Cobden Unwin, his sole surviving daughter, who has presented the house, with the furniture and many interesting pictures, books, and other relics, to the nation, was present with her husband at the opening ceremony, as also was Cobden's grandson, Mr. Richard Cobden-Sanderson.

Municipal and County Engineers: Annual Conference.

The programme of the 58th annual general meeting and conference of the Institution of Municipal and County Engineers is now issued from 84, Eccleston-square, S.W.1. The conference is to be held at Birmingham from June 17-20, and the President is Mr. H. H. Humphries, M.Inst.C.E., City Engineer, Birmingham. A number of papers on various subjects will be read, and a variety of interesting visits have been arranged.

"Engineers' Estimates."

At a meeting of the Court of Common Council at the City Guildhall, the Streets Committee recommended the acceptance of a tender for sewer work in Whitefriars-street and the construction of a portion of a sewer in Cornhill. Mr. John Stopher, Chairman of the Rates Finance Committee, expressed regret that officers' estimates of costs should be disclosed. Mr. John Conoley agreed with the criticism. He said that the figures were published to the world for all interested to see, and contractors were able to base their tenders on them.

Auctioneers' and Estate Agents' Professional Examinations, 1931.

The results of the annual professional examinations of the Auctioneers' and Estate Agents' Institute of the United Kingdom are just issued. 698 candidates sat for the examinations, of whom 428 were successful, Mr. W. Norman Read, of London, being first in the final examination, gaining the Daniel Watney Gold Medal and prize of fifteen guineas; Miss Margaret Price, B.Sc.(Lond.), second, gaining the Institute prize of ten guineas; and Mr. J. E. King winning the silver medal and prize of ten guineas in the intermediate examination.

London Building Act.

Definite proposals for the amendment of the London Building Act, 1930, will be welcomed by the advisory committee appointed to consider and report to the London County Council as to any such amendments that may be necessary. Proposals, which must be in writing, should be accompanied by sufficient explanations, and should be addressed to the Clerk of the Council at the County Hall, Westminster Bridge, S.E.1, as early as possible, in any case by the dates set out below:

Part I to IV, May 31; Parts V and VI, and 1st, 2nd and 3rd Schedules, June 30; Parts VII to IX, July 31; Parts X to XIII, September 30; Parts XIV to XVII, and 4th and 5th Schedules, October 31.

New Cancer Hospital, Liverpool.

The demolition of the Cancer Hospital, Myrtle-street, Liverpool, which is over half a century old, and its replacement by a modern building, which will be about 90 ft. high, is planned by the committee of the Liverpool Radium Institute and Cancer Hospital. The first portion of the scheme, which includes the out-patients' department and floors above, will cost about £20,000, and the entire scheme will probably entail an expenditure of about £70,000. The new building will consist of eight separate floors, with a flat roof arranged for staff recreation purposes. The external elevations will be faced with grey brick with stone dressings to lower stories. The architects are Messrs. Rees & Holt, FF.R.I.B.A., 64, Rodney-street, Liverpool.

Newcastle Preservation.

The report of the Northumberland and Newcastle Society for 1930 mentions that the purchase by the Newcastle Corporation of Jesmond Dene House, which follows the lines of the society's Green Belt scheme, has now been accomplished. The grounds of the mansion will be added to Jesmond Dene. The conservation of the beautifully wooded Denton Dene—one of the few remaining natural beauties of the suburbs of Newcastle—forms part of the Green Belt scheme, and the society has received the Lord Mayor's personal assurance that the Town Moor and Parks Committee of the Corporation are pushing on with their work in the dene, and, at the same time, with the widening of Denton-road.

Holiday Courses Abroad.

In the course of a letter on this subject, Major W. Stormont, delegate for Great Britain of the Italian State Tourist Department (E.N.I.T.), 16, Waterloo-place, S.W.1, writes as follow:—"I have read with interest the article which appeared in a recent issue of your paper concerning the holiday courses for foreigners at the University of Perugia, in Italy. Holiday courses are also held in Rome, Varese, Siena, Florence and Venice. I have available a book in English giving full details of all the Italian courses, and will be glad to supply a copy (gratis) to any of your readers, also to give them advice, information, and illustrated and descriptive printed matter concerning travel in Italy."

COMPETITION NEWS

Proposed Town Hall, Southwark.

The following architects have been selected by the assessor, Mr. Louis de Soissons, F.R.I.B.A., S.A.D.G., to submit plans in competition for the proposed town hall:—

Messrs. Adshead and Ramsey, FF.R.I.B.A.; Mr. C. Cowles-Voysey, F.R.I.B.A.; Messrs. Elcock and Sutcliffe, FF.R.I.B.A.; Messrs. Lanchester and Lodge, FF.R.I.B.A.; Mr. E. Berry Webber, A.R.I.B.A.; and Messrs. Yates, Cook and Darbyshire.

Public Buildings, Northampton.

The Corporation of Northampton invite architects of British nationality to submit designs for new public baths, police and fire stations, sessions court, etc., to be erected on a site in Campbell-square and Upper Mounts, Northampton. Premiums of £500, £400, £300 and £200 are offered. Mr. Percy Thomas, F.R.I.B.A., is the assessor. A copy of the conditions and a plan of the site may be obtained on application to the Town Clerk, and a deposit of £2 2s. Applications must be sent to Mr. W. R. Kew, Town Clerk, not later than May 29.

CORRESPONDENCE

Chiswick Bridge.

SIR,—Much concern has been expressed regarding the flooding of the Thames, and many recommendations of a costly nature have been given effect to; yet before the ink is dry on the papers containing those recommendations and ere the floods have ceased, further obstructions, in connection with the new Chiswick Bridge, are placed practically in the centre of the stream, holding back flood tides, causing the very state of affairs which it is desired to avoid.

Cannot architects design bridges which do not require buttresses in mid-stream? It seems possible in every country except our own. There is a danger to river traffic, and people who navigate the reach in question, under certain circumstances, collide with the existing piles every time they pass. When will that much-vaunted "British common sense" which has done so much for this and other countries, be revived for our own use?

W. R. WHITE.

St. Agnes', Kennington Park: An Appeal.

SIR,—Doubtless many of your readers are familiar with the wonderful work in the revival of stained glass accomplished by the late C. E. Kempe. While examples of his work may be seen in many ecclesiastical and other buildings, his best work is represented in the Church of St. Agnes', Kennington Park, in which he took the keenest interest, and in which he is commemorated by the great window in the south transept, erected by his admirers.

The east window of this church, remarkable for its size and magnificence, is commonly acclaimed as his finest work. This masterpiece is in danger, owing to the perishing of some of the stone and metal work, and we have to spend £100 at once to render it secure. This, in a poor parish already crippled with debt, is beyond our unaided resources, so I venture to invite help from any of your readers who value the great craftsman's work, and will assist us, as trustees for its preservation, to avert any further danger to it.

THOMAS DONOVAN.
Vicar of St. Agnes', Kennington Park.

"To Yoat, To Yout, To Yont."

SIR,—Perhaps it may help Mr. Denoon to know that in St. John Hope's "Windsor Castle," p. 264, the following entry appears: "1534-1535 (MS. 777). Plommers. Workyng as well uppon the scrubyng Sawdrying and mendyng wth new leade Dyverse ffawty places of the leades over the Rounde Tower as also YONTYNG the hookes of the Kechyn Dores in to the stone walles."

On p. 638 of the same book the following definition is given:—

"YONTYNG.—Joining or fastening iron hooks into stones by running lead in."

W. S. PUNCHON.

"Legal Misconduct" of an Arbitrator: A Misleading Phrase.

SIR,—In your last issue you published at length a report of a case in which the High Court had quashed a building case award on the ground of "legal misconduct of an arbitrator." What an objectionable-sounding phrase that is, and yet one which, to lawyers, at least, casts no sort of opprobrium upon the arbitrator. Is it not time that there should be a term less open to objection to justify the Court overruling an arbitrator on a point of law? No one suggests that when the Court of Appeal overrules the decision of a judge of the High Court that the judge has been guilty of legal misconduct, even though the successful ground of appeal (as in the case of an arbitrator) is that he has refused to allow certain evidence to be given or that he has misdirected himself on a point of law, or even that he has said something in his judgment which is against the weight of evidence. It would certainly be derogatory to our system of jurisprudence if any such phrase were used about our judges, and I suggest that it is high time that arbitrators be saved from the possible misconstruction that the lay reader may place upon such a term. It is a term which is only applied to arbitrators, and though, of course, applicable in all classes of arbitration, I suggest that it would not be unreasonable for the R.I.B.A. to move to have the phrase erased from legal nomenclature.

FIAT JUSTITIA.

Charing Cross Bridge.

SIR,—Where so much time and consideration have been given to the problem of Charing Cross Bridge, one hesitates to make any further suggestion, but I venture to put forward the following proposal as a possible solution, which would retain Charing Cross Station on its present site on the north bank of the Thames, and at the same time avoid the road tunnels which occur in all the "official" schemes on the south side.

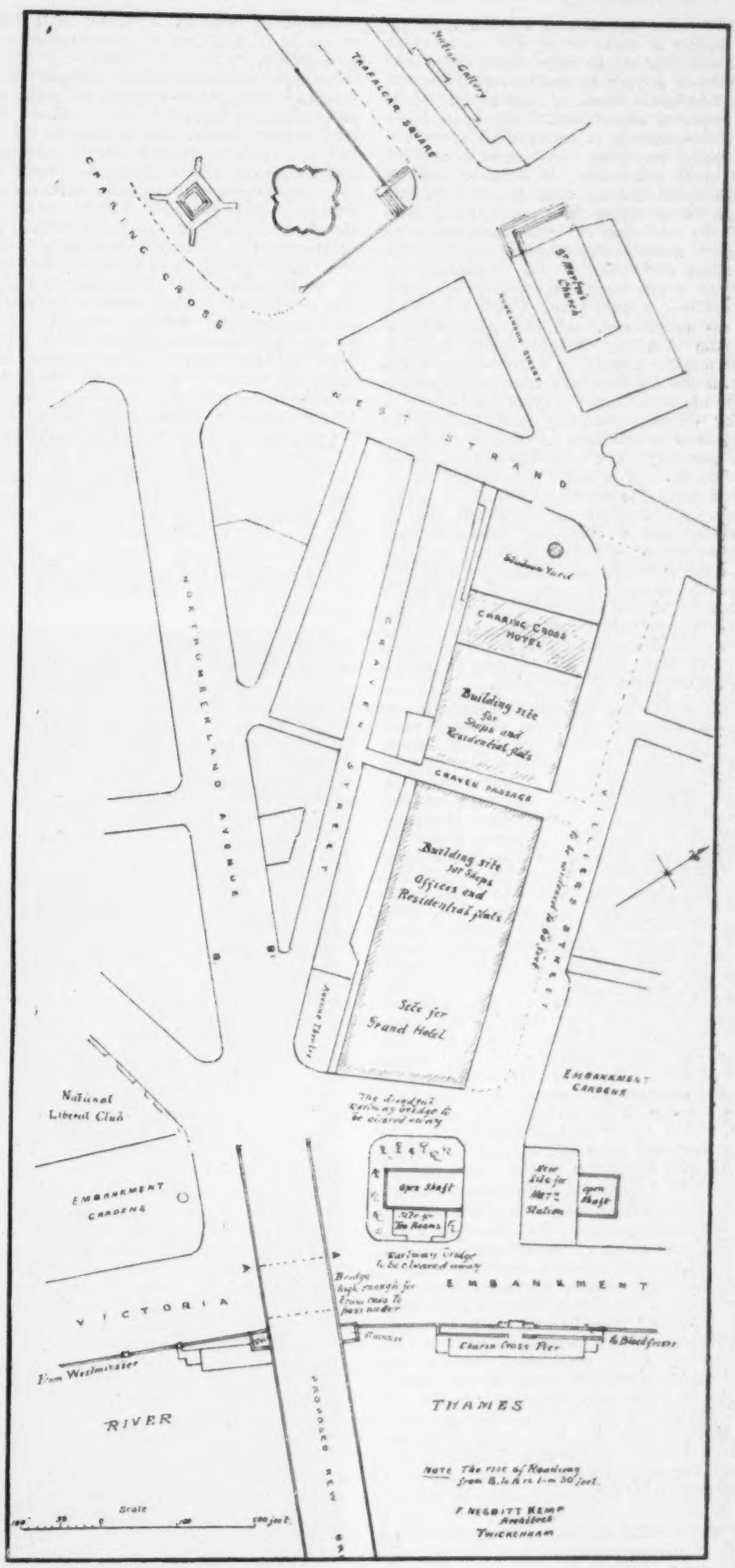
Very briefly my suggestion is that Charing Cross Bridge be rebuilt as a combined road and rail bridge in its present position, and at its present level above the river, but of considerably greater width than now, so that the railway tracks occupy the central portion of the bridge (with the station rebuilt in its present position), and with space for vehicular and foot traffic on each side of the railway, that on the east side of the bridge taking only traffic going southwards, and that on the west side only that going northwards; this last, emerging into the Strand, would follow the general westward stream of traffic, and travel thence round the Trafalgar Square "roundabout" if desiring to go northwards or eastwards. The above is a different proposal from the combined "double-decker" road and rail bridge suggested by the recent Royal Commission on London Bridges, and subsequently abandoned.

On the north side of the bridge this proposal might possibly mean a slight diversion of Craven-street and of Villiers-street in order to obtain sufficient width for the road and foot traffic portions on each side of the station. On the south side the road and foot traffic portions would gradually descend away from the railway tracks, the eastern arm possibly to a "circus" at the junction of Waterloo-road with York-road, and the western arm to York-road opposite Meopham-street, which would need to be widened, the gradients of these slopes being very similar to that of the present Waterloo Bridge approach on the south side of the river.

In rebuilding the station it might be rebuilt as a two-story building with the railway tracks at high level as now, and a large "concourse" beneath, level with the Embankment, all taxis and cars being made to drive into the station at this lower level from the Embankment, thus relieving the Strand of a great part of its present congestion at this point.

The proposal is not a novel one, as several examples of combined road and rail bridges exist in various parts of the world.

DIGBY L. SOLOMON, B.Sc., F.R.I.B.A.



Charing Cross Bridge: A Suggestion.

By MR. F. NESBITT KEMP.

The author of this scheme suggests that the vehicular traffic route should be through Northumberland-avenue instead of through the already overcrowded Strand, as proposed in the "majority scheme" of the L.C.C. Advisory Committee, whose recommendations were referred to in our issue for March 27.

ARCHITECTURE AT THE ROYAL ACADEMY

THOUGH the appearance of the architectural gallery is improved by the less crowded walls this year, it is only obtained by the provision of a very limited space and exclusion of subjects some of which one would have expected to see here. There is no doubt that the restriction on space often causes the rejection of drawings which have some good claim to be exhibited. It must be difficult to find space for all that might be hung, though we generally note a certain number which do not seem to have much claim on the space at all. The encouragement to devote time and cost to the preparation of drawings is not very great, and we all know of rejections in past years which have been hard to understand. All this goes to show that the Academy should really consider giving another gallery up to architectural design for the dignified and adequate representation of architecture, which is surely a worthy object, especially now that public attention is increasingly focussed on building work generally. The inclusion of a couple of hundred pictures more or less cannot surely count against the claims of the art of architecture. Architecture is a difficult art to illustrate, and a beautiful, attractive and dignified rendering of it is not often realised. The hard and formal illustration which is frequently affected in architect's drawings is not much like the reality of executed work, and there is no wonder that painters generally feel so little sympathy with the attempts architects make in their exhibits to secure some appreciation of their aims.

Many extensive building enterprises are now on the way towards execution and others projected, but there is not much design in most of them which rises above the prosaic. Exceptions are certainly the Tunbridge Wells Municipal Buildings by Mr. Vincent Harris, and Southampton Municipal Buildings by Mr. Berry Webber, whilst the Worthing new public buildings should give Mr. Cowles-Voysey a chance for some telling municipal character which the sketch exhibited insufficiently explains. The great group of buildings for the Leeds University by Messrs. Lanchester and Lodge can only be judged by isolated buildings and groups, but they promise well. Other large buildings are inadequately represented, such as Dorchester House and the South African building. This latter is hardly worthy of its opportunity, for it has evidently been designed to be a commercial asset as well as to pay some homage to its architectural surroundings, and it rather falls between the two, for its outline and mass fail to accord with the feeling and character of the fine buildings which give a value to Trafalgar-square.

The composite frame of the National Provincial Bank opposite the Mansion House (1,407), containing a detailed portion of the elevation, a small general view and some of the sculptured figures, forms an interesting illustration of Sir Edwin Cooper's great building. His other contributions are two coloured interiors of Lloyds—ante to the Room and the corridor. No illustration has yet done justice to the fine corridor at Lloyds. Amongst interesting drawings on the east wall are the Church of the Immaculate Heart of Mary (1,363), by Mr. George Drysdale; "High Leigh," Hoddesdon (1,373), by Professor Beresford Pite and Partners; and the Presbytery, Hythe (1,375), by Mr. Arthur R. Welby.

The cathedral design (1,335) by Mr. Roger A. P. Pinckney is an excellent Gothic design with very original treatment. The plan shows a central octagon of low proportion with a steep pointed roof. There is a good deal of circumstance about the plan entering through a deeply recessed narthex and massive transverse arches, the emphasis of the great piers of the octagon and a long chancel with circular apse; this would make an interior of much interest. There is a certain feeling of dignity and repose in this design which has evidently been inspired by a desire to compass a simple and telling effect in a building of comparatively low proportions.

Amongst the few church designs at the Academy this year we have an admirably proportioned church of comparatively small size by Mr. W. J. Tapper, A.R.A. (1,341, 4, 7) in a sound Early English style, which has a nice feeling of scale and promises a very good interior with an open clerestory gallery. It is well to see our old Gothic tradition so well preserved. Very admirable, too, is Mr. H. Bidlake's interior of a Birmingham church, at Wylde Green, in a decorated Gothic manner (1,348): it has a fine and telling effect of height and good emphasis of detail; it should be one of our best modern churches. Of another type is Mr. Farey's clever design for a cathedral, with a good round vaulted interior; certainly with nothing typically English about it, either inside or out.

There is one thing which is emphatically told by the model of the central pediment of the new Bank of England, and that is that the outstanding sculptured figures beneath the pediment portico appear in the model to be out of feeling with the refinement of their architectural setting. Even the female figure in the pediment, not content with her muscularity, has her legs straddled out in a very unclassical style.

It is a pleasure to turn to the little Wayside Inn (1,359) by Mr. H. P. Maule, represented in a pleasant little water-colour, and one wonders why many similar buildings are not equally good. There is no extravagance of cost, only an agreeable mass outline and good definition of features. Alongside this hangs a little Church Hall by Adams, Holden & Pearson, which gives good architectural effect by just expressing its functions in a simple, pleasing form. Hanging below this is a good design, Tragarriff, Bantry Bay (1,360), by Mr. Briant Poulter. St. Swithun's School, Winchester (1,357) by Messrs. Mitchell and Bridgwater, is a very satisfactory Georgian type of building and architecture. The project for the development of the Adelphi site (1,358) by Messrs. Elcock and Sutcliffe, shows what opportunities may be offered for enterprise in the provision of new buildings, though one might have wished, if such a project were at all probable, that some trace of the character of the old Adelphi work could have been preserved. The representation of what is actually taking place in the developments of the newer London, such as Sackville-street, might well have found itself alongside such proposals as this.

The most prominent exhibit in the gallery and one which outclasses all else is the large drawing of the Sydney Harbour Bridge (1,401), by Sir John Burnet and Partners. This well-executed view shows what will probably rank for some time as one of the finest bridges. The design has an unusually successful effect of combining structural engineering with architectural form, and it shows that the lines of the engineer's work can be made to conform with agreeable architectural shapes. The eye, at all events, receives some kind of satisfaction in the idea that the resultant effect of the metal strains and stresses combine with the bulk of the great pylon in a suggestion of wholly adequate and enduring strength. The bridge has, of course, a superb setting in the fine harbour.

The variety which comes into an architect's practice is shown by the other two exhibits by Sir John Burnet—a hospital and a commercial house. The Unilever House (1,391) is now nearing completion on its prominent site, and will be a satisfactory example of a broad and simple wall treatment crowned by a dignified cornice. It appears that the appreciation of a good cornice has not yet died out. The Freemasons' Hospital and Nursing Home (1,387) by the same architects shows the same steadiness of handling of the mass and good detail which a well-equipped architect can evolve.

The value of an architect in the handling of town problems is well illustrated in "The Headrow, Leeds" (1,395), by Sir Reginald Blomfield, who has allowed a simple expression of solids and voids to be contained within well-marked divisions of the façade between the stone base of the lower floor, which is carried up into the central colonnaded feature and stone bays on the flanks of the two portions of red brickwork

On the west wall there are several good exhibits centred by the model of Sir Herbert Baker's Cable House on the Victoria Embankment. This shows the large doorway flanked by outstanding columns supporting good-sculptured figures which have, however, a somewhat spidery effect. The Tunbridge Wells Municipal Buildings (1,422), by Mr. Vincent Harris, are shown from a good point of view, and promise a well-proportioned work which is set out in an interesting way with high-pitched roofs and open-columned pavilions. The same architect's design for the City of Leeds Municipal Buildings (1,426) shows a good composition with an outstanding portico and recessed buildings back to the two towers: both dignity and circumstance are achieved. A good piece of Renaissance design is that of the new Geological Museum (1,421), by Mr. John H. Markham. The Clinic and Nursing Home by Messrs. Naylor and Walcot is too slightly represented to have much value. An imposing mass of buildings is the London Clinic and Nursing Home in Devonshire-place (1,428), by Mr. C. H. Biddulph-Pinchard—hardly shown to the best advantage. A simple, dignified building is the Municipal Buildings, Preston (1,420), by Messrs. Briggs and Thornely. What promises to be a very good group of buildings is the Merchant Taylors' School (1,415), by Messrs. W. G. Newton and Partners. This will be one of the best of our public schools, which are not, as a rule, too well housed.

One of our prominent and best banks will be the headquarters for Martin's Bank, Liverpool (1,390), by Mr. Herbert J. Rowse. A good general effect is obtained by a skilful disposition of cornices and window openings, which will make a notable addition to Liverpool street architecture. The Ramsey Grammar School, I.O.W. (1,388), by Messrs. Pearson, Son and Duffy, will be a well-balanced group. The University College, Hull, science and social building, is an agreeable block of two main stories of a Georgian type (1,393), by Mr. Wm. A. Forsyth, and we venture to suggest rather more substantial chimneys would carry off the general scale of the work rather better. A somewhat severe brick building is (1,389) the Valentine Telephone Exchange by Mr. Christopher Bristow. The House at Beaconsfield, Bucks (1,392), by Mr. Stanley Hamp, is a squarely outlined white building and with curiously elongated windows which cut away all the corner wall supports of the building, rather suggestive of the work of our Continental friends. A nicely proportioned pair of Georgian houses at Hampstead (1,396) is an agreeable group by Mr. C. Cowles-Voysey. In another charming wayside inn in Middlesex (1,397), Mr. H. P. G. Maule shows what good results can be obtained in country buildings. Staff houses at Rangoon (1,398) are by Mr. Thos. O. Foster, and should suit their surroundings well; and Judson College, Rangoon (1,400) is by the same architect. An exceedingly nice work is the Violet Melchett Infant Welfare Centre (1,399), by Messrs. Buckland and Haywood, illustrated in a model way by a delightful drawing. In the other Telephone Exchange, Euston (1,404), Mr. Christopher Bristow gives us a pleasant brick building nicely accentuated. The House at Hitchin (1,403), by Mr. Horace J. M. Austin; the House at Mortimer (1,405), by Mr. Raffles Davison; and the Golf House at Ashridge Park (1,408), by Mr. W. Stanley Grice, all give something of the pleasant picturesqueness which still, fortunately, gets a chance to furnish our countryside. A delicate interior of the Brotherton

Library for Leeds University (1,409), by Messrs. Lanchester and Lodge, has a pleasant sort of Adam character. A good block of flats, Kensington-square (1,410), is shown by Messrs. Richardson and Gill. A striking, lofty building of some nine stories is the Tower House, Central-avenue, Calcutta (1,416), by Messrs. Stanley Hamp and A. Bernard Matthews.

A pictorial treatment of the change in London's street perspective is "The City" (1,462), by Mr. Wm. Walcot. This is a change from this artist's strongly accentuated blues and greens, a feeling of mystery, amongst which we discern the shadowy form of the new Bank of England.

A good effective bird's-eye view of the Bargate improvement scheme, Southampton (1,456), by Mr. H. P. Cart de Lafontaine, suggests a cleverly laid-out scheme.

The activities at Portmeirion, North Wales, by Mr. Clough Williams-Ellis, are reflected in the Campanile (1,455). The view is a rather odd one which does not quite do justice to the striking original. (See page 830.)

The extension to St. Paul's Eye Hospital, Liverpool (1,453), by Mr. H. J. Rowse, has a very simple façade of brick, which has rather the look of a warehouse, but probably the plan discloses a reason for the sparsely lighted ground floor. Mr. Lidbetter's work is always interesting, and his House at Basildon (1,452) has a good outline dominated by two bold chimney-stacks and with a well-balanced front.

The reredos, Budleigh Salterton Church (1,355), is a good example of Mr. H. P. Burke Downing's work.

Some interesting screen work is shown in the Lady Chapel enclosure, Church of St. Saviour, St. Albans (1,451), by Mr. Martin Travers. Mr. Oliver Hill's House at Biarritz (1,427 and 1,449) is an agreeable Italian design in which the cornice comes into its own. The additions to Girton College, Cambridge (1,457 and 1,460), by Mr. Michael Waterhouse are in a well-known type of Gothic.

Two of the best line elevational drawings are 1,450 and 1,461, both of good design, by Mr. Francis G. Ford, the former, and the other by Mr. Leonard H. Bucknell and Miss Ruth Ellis. Three drawings which are hung too high to be very informing are Messrs. Ashley and Newman's Carfax, Oxford (1,448), and Messrs. Thos. Worthington and Son's Bournemouth High School for Girls (1,454 and 1,463).

We are glad to note an admirable new dining-hall for Weymouth College (1,376), by Professor Beresford Pite and Partners, in a sort of Tudor Renaissance. A good coloured bird's-eye view (1,381) does some justice to the very promising groups of buildings for the University College of Wales at Aberystwyth, by Messrs. Lanchester and Lodge. A dull-looking elevation shows the Stowe School boarding-house (1,382), by Mr. Ronald F. Dodd. The Paramount Theatre, Newcastle (1,365), by Messrs. Verity and Beverley, is far more dignified and architecturally reserved than one usually finds in this kind of building. The Connaught Court, Hyde Park (1,364), by Mr. R. C. White-Cooper, shows how a building of nine stories may be reduced to pleasant proportions.

Mr, Andrew N. Prentice is represented only by the Proposed Riding School (1,384). No. 1,342 is a not very attractive bird's-eye view of a good housing scheme at Camberwell, by Mr. G. Topham Forrest. Nos. 1,337 and 1,349 are elevational drawings of the British Medical Association Extension in Tavistock-square, a good Renaissance design by Mr. C. Wontner Smith.

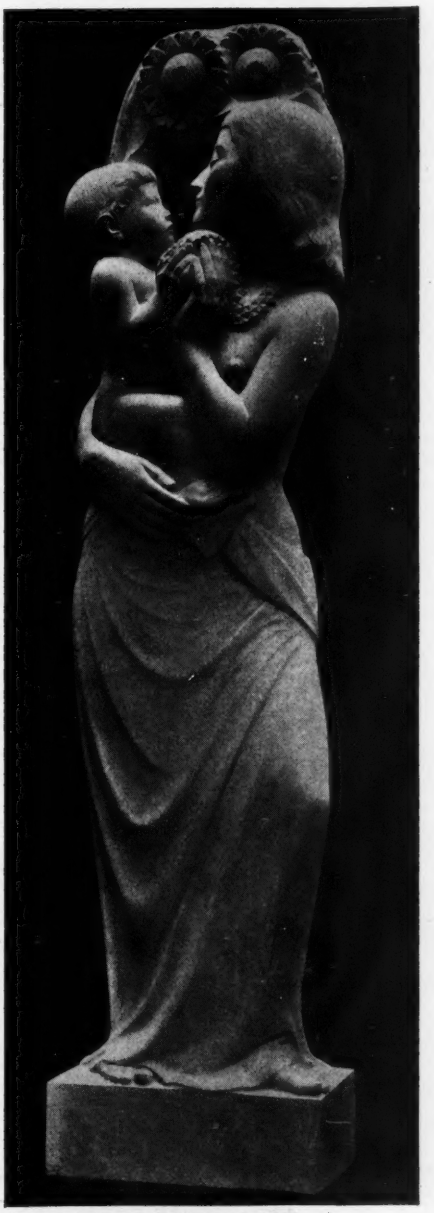
We have referred to nearly everything which gives any character to this exhibition, which reflects somewhat inadequately something of the varied practice of the day. With better wall space and adequate presentment, such as we get in the Paris Salon, architects would probably find a way of putting the best quality of their work before the public.

SCULPTURE AT THE ROYAL ACADEMY

By T. P. BENNETT, F.R.I.B.A.

Lack of imagination, lack of originality, dullness—this is the first impression created by a cursory survey of the sculpture exhibit at the Royal Academy of 1931. The last few years seemed to show that at last British sculptors were awakening from the long period of sound but uninspired work which had formerly been so evident, and that several men appeared likely to lead the plastic art to a position it had not held for many years. 1931 does not continue this promise of progress. There are fewer works of first importance, fewer of outstanding merit, and there exists, unfortunately, no general atmosphere of vitality which would promise better things for "to-morrow." This general dearth of good work may be due to the financial depression which continues to pervade the country, and which probably hits sculptors more than almost any other section of the community. It may be due to lack of cohesive and constructive thought, or to lack of the widening experience of travel, which our somewhat insular temperament still imposes upon many members of these islands.

Too few architects find places in their buildings for sculpture. Too few remember that the "mother of the arts" has children, and that often relief, or carving, or enriching figures, or form from the sculptor's chisel will instil an interest into their designs which cannot be present when only geometric shapes are used. On the other hand, it must be admitted that many figures and groups modelled by sculptors have little or no architectural feeling, and do not in any way reflect their architectural origin and surroundings.



Royal Academy Exhibition, 1931.

"The Sunflower": Life-size Garden Group in Portland Stone.

Mr Gilbert Ledward, Sculptor.

Mr. Gilbert Bayes has risen above this prevailing depression in designing the great frieze for the Saville Theatre, of which two sections are shown, Nos. 1512 and 1581. These reliefs form part of a band of sculpture at the base of the building, which has been used as the real "motif" of the design. The frieze is 110 ft. long, and represents "The Drama Through the Ages." It is in low relief, having ample "incident," and maintaining its full measure of attraction throughout its length. In the Central Hall Mr. Bayes exhibits a figure in bronze, called "The Frog Princess," which is part of a fountain design. The general form is piquant and attractive, the balance well maintained, and the colour good.

Another outstanding work which rises above the general level is "The Sunflower," in Portland stone, by Mr. Gilbert Ledward. If this is a criterion, Mr. Ledward is shaking himself free from the heaviness of handling which formerly characterised his detail, and is gaining just that individuality and interest that is needed to give his work real attraction.

Mr. Reid Dick amongst English sculptors probably maintains the highest general level of achievement. His work is consistently good; it is often brilliant, it is never dull or bad. If not, perhaps, strikingly original, it always contains some fresh thought, some new lines of composition, some new colour, and invariably a very high level of craftsmanship. This year is no exception to the rule.

He exhibits "Welcome," a full length figure in bronze, simple in general attitude and treatment, attractive in line and colour, having a real imaginative appeal. His head, "Study of Kraskie," is perhaps hardly so good, but his small work in bronze, "Study of a Shire Horse," has broad, simple lines which are architectural and unmistakably attractive.

In the South Rooms, "Model for a fountain in bronze and stone," while not very original, is yet simple and sound.

Of the rest of the work in the Central Hall, "As one whom his mother comforteth," a group by Mr. George H. Paulin, is angular and lacking in focus. "Crucifixus est," by Mr. Joseph Else, a large work in relief, becomes confused, in spite of good handling and detail, by failure to maintain sufficient subdivision between the masses. The underlying idea might have become a good work. "Worship," a winged kneeling figure by Mr. W. Reynolds-Stephens, presumably executed in marble, has full wings, which are entirely foreign to correct treatment in stone.

A bust in pink plaster in this room, called "Reverie," by Mr. Adrian P. Allinson, has suggestion of good possibilities; this sculptor should produce good work.

"Hugh Oldham, Bishop of Exeter," by Mr. William McMillan, is sound craftsmanship of a type that has been seen so many times before that it fails to hold interest. It cannot be called incompetent, because it is far removed from the incompetent category, but it completely fails to display any new thought, any new type of handling, any great feeling of mass or composition; in short, it is a work sound but uninspiring. "Modern Grace," by Mr. C. W. Dyson-Smith, is rather stiff and stilted, but with a hint of grace and a mite or originality.

"Undine," by Mr. Newbury A. Trent, in synthetic marble, has strength, firmness and vigour. A garden figure in stoneware by Mrs.

Phoebe Stabler is quite unworthy of the good work this artist has produced in the past.

"Revelation," by Mr. H. Pownall Bromet, is an ambitious group, which fails to rise to great heights.

The place of honour in the Lecture Room is occupied by Sir W. Goscombe John's large figure in pale green bronze, called "Folk Song." It lacks sculpturesque qualities, and is loose in composition. Few will see in it any great amount of interest.

"The Dancer," by Edith M. Gabriel, is a life-size figure in which the head and torso are well modelled and not without interest, but in which the legs have managed to gain a feeling of being "intertwined," which is not either interesting or pleasant.

"Hope—figure suitable for God's Acre"—(*sic.*), by Mr. Reynolds-Stephens, as described in the catalogue savours of trade methods of offering for sale. The Royal Academy catalogue should avoid captions of this kind. The figure may be suitable for "God's Acre"; unfortunately too many figures are "suitable" for this purpose.

"Sonata Pathétique, Beethoven," head, presumably in bronze, by Mr. Richard Garbe, attracts firstly by its colour, which is a pleasant range of grey tones, and then by the way in which it has interpreted the broad and massive lines of the great composer's features. It is not a mask, but a work which has caught the bigness of masterly broad simplicity which characterised the work of the great German musician. A work not without real merit.

Mr. David Evans's "Marghetta" is good, but for so young a man is tending to be rather too stereotyped. He should adventure forth and try work which may not be technically so excellent, but which might quite well display some of the great ideas that lie dormant in his brain.

ROYAL ACADEMY EXHIBITION, 1931.

"Madonna and Child": Bronze Group.

MR. ALLAN HOWES, Sculptor.

It is disappointing to find no greater interest in the work of Mr. F. Whitney-Smith. This artist has many times shown modern woman handled with naturalness which yet avoids mere copyism, and has thereby managed to instil into his work an attraction which has been unmistakable. This year the naturalness remains, but it is no longer inspired. Next year Mr. Whitney-Smith ought to be able to show the world that he is great enough to surmount the dangers of his own good qualities and return with something more worthy of himself.

"Restoration," by Mr. James Woodford; "Mother and Child," by Mr. Julian P. Allan, and "The Protector," by Winifred Leveritt, are attempts at originality which only partly succeed.

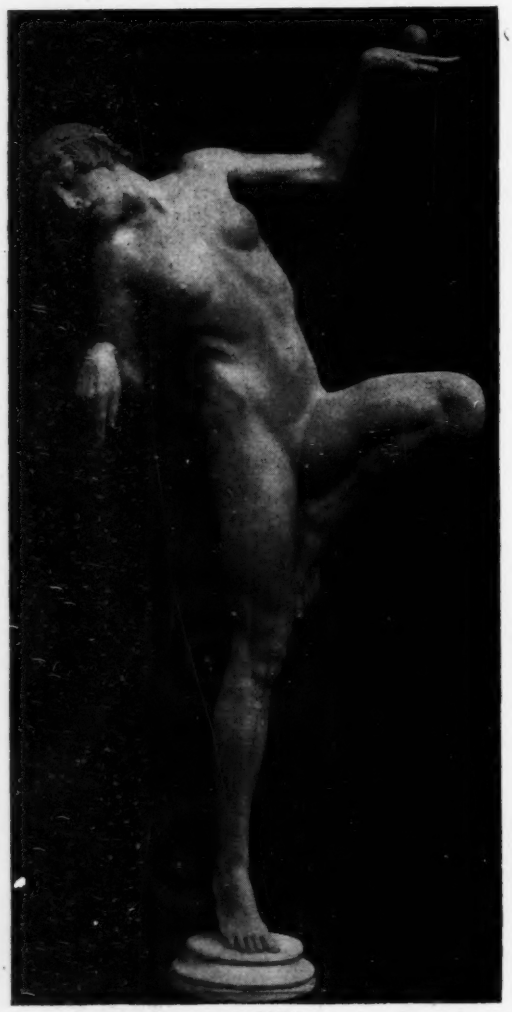
A "Madonna and Child" in carved and lacquered wood, by Gladys Hynes, is unusual, and in certain settings might be a fitting enrichment to an altar or reredos. It has the right atmosphere of new thought and some element of religious austerity.

Other works which might be mentioned are "Peter and his Goat," by Yule Hayes, a green bronze, good from some viewpoints; Josephine G. Owen as "Puck," by Annie Acheson, a garden figure in lead; "Otter and Fish," garden fountain in green marble, by H. Wilson Parker; "Thirty Pieces of Silver," statuette in carved wood, by Freda I. Sayers.

The recent practice of the Academy of placing a bust or head on either side of many of the doorways is not an asset to either sculptors or critics, since these scattered works are difficult to examine, and in any case do not look their best next to architecture with which they are out of scale.

The Art of Lettering.

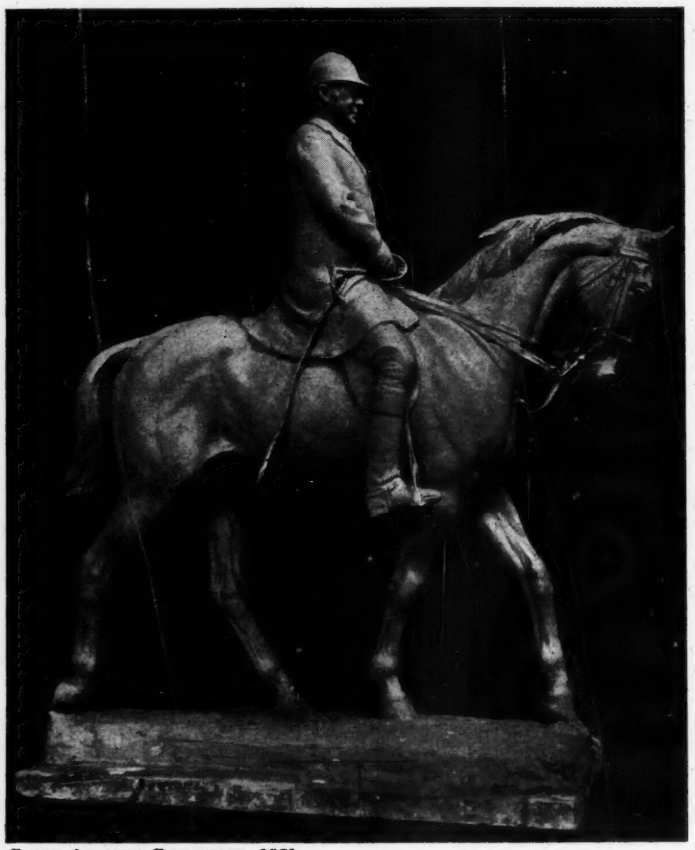
An exhibition, illustrating "The Art of Lettering," organised by the British Institute of Industrial Art, will be held (by courtesy of the Director of the Museum and the Board of Education) at the Victoria and Albert Museum, S.W.7 (Galleries 16 A and B) from June 1 to July 4. The exhibits will include examples of lettering in stone, wood, metals, enamel, oil-paint, textiles, pottery, glass, tiles, and manuscript. An illustrated report on "The Art of Lettering in the Crafts and Trades" (the work of a special committee of the Institute) will be published by the Oxford University Press early in June.



ROYAL ACADEMY EXHIBITION, 1931.

"The Frog Princess."

MR. GILBERT BAYES, F.R.B.S., Sculptor.



ROYAL ACADEMY EXHIBITION, 1931.

The Rt. Hon. the Earl of Lonsdale, K.G., G.C.V.O.: Equestrian Statuette.

MR. S. W. WARD WILLIS, Sculptor.

ARCHITECTURAL COPYRIGHT

We take the following, with permission, from the current issue of the *R.I.B.A. Journal* :—

With the authority of the Council, the Practice Standing Committee instructed the Institute solicitors to submit the following case to counsel for his opinion :—

A building owner has a large site which he is going to develop in two portions. His architect designs the elevation for the whole block, and superintends the erection of the first portion and is properly paid, and his work ceases. A year or two after, the building owner desires to proceed with the second portion of the scheme. He does not employ the same architect but instructs another one to proceed with the work, following the elevation of the first portion of the premises already built.

Under these circumstances the Committee desire to know from counsel :—

(1) To whom does the copyright in the design of the whole block belong?

(2) Inasmuch as the first architect's fees have been paid, and he would therefore be obliged to hand over the drawings, can the building owner use those drawings for completing his building without infringing the copyright?

(3) Would the second architect be entitled to use any drawings of the first architect, handed to him by the building owner, without incurring penalties?

(4) If there are no drawings available for the completion of the second block, would this second architect, on the instructions of the building owner, be entitled to copy the first block and complete the elevation?

Counsel's opinion has now been received as follows and is published for the information of members on the recommendation of the Practice Standing Committee :—

Opinion.

In my opinion an architect is employed *prima facie* on the implied terms that having prepared drawings which have been accepted he is not only under an obligation to the building owner to supervise the construction of the work contemplated, if called upon to do so, but is entitled to withhold his drawings from the building owner if being able and willing to supervise the construction of the work the building owner attempts to dispense with his services either by employing another architect, or by completing the work without an architect.

In the case put, of a proposal to erect a block of buildings in two portions of uniform design and an architect being employed to prepare drawings for and supervise the erection of the first portion, the position is a little different, but the same principles are applicable. The building owner is entitled to delivery of the drawings to him as his property when the first portion is completed. In my opinion, however, neither the copyright in the drawings nor in the buildings as a work of architecture passes to the building owner and, therefore, the building owner cannot use the architect's plans for the purpose of constructing the second portion of the block without the consent of the architect. Even although the architect knew from the beginning that the building owner intended to erect the block in two portions of uniform design and his contract was only in respect of the first portion, nevertheless, there is, in my opinion, no implication of consent on the part of the architect to the use of his drawings for the purpose of constructing the second portion under the supervision of another architect, or without the employment of any architect. I have already advised the R.I.B.A. that, unless there is an express agreement to the effect that the building owner shall be entitled to the copyright in an architect's drawings or there are special circumstances in the case which compel the implication of an agreement to that effect, the copyright in the drawings remains with the architect, and if that be so the drawings cannot be used for the purpose of further construction without the architect's consent or under some express or implied term of his engagement, that his drawings may be so used.

I am assuming that the buildings in question are of such an original artistic character or design as to entitle them to protection as an architectural work of art, and on that assumption I am of opinion :—

(1) That the copyright in the design of the whole block belongs to the architect.

(2) That although the building owner has paid the architect his agreed fee in respect of the first portion of the block, and is in possession of the drawings he cannot use them for completing the block without infringing copyright.

(3) The second architect, by authorising and being privy to the erection of the building would also infringe copyright, and be liable to damages or penalties accordingly.

(4) If the drawings were not available it would equally be an infringement of copyright for the building owner or second architect to complete the block by copying the first portion from the building already erected.

(Signed) E. M. MacGillivray,
February 11, 1931. Temple, E.C.4.

THE WREN VOLUMES

The architect to five sovereigns, the creator of a great cathedral, the builder of Royal palaces, and the founder of a fine English Renaissance, Sir Christopher Wren has come into his own in a very admirable work of bibliography, published by the Wren Society in the form of the seventh volume* which the society has issued. It contains a mine of information, and deals chiefly with the Royal Palaces of Winchester, Whitehall, Kensington and St. James's, and contains a number of interesting illustrations, including some additional designs for Hampton Court Palace, and original drawings by Sir Christopher and Sir John Vanbrugh.

There are some 230 pages of notes on accounts, letters and diaries which give some insight into the times and methods. But the chief value, we feel sure, will be found in the numerous illustrations which have been so carefully got together from various sources made available by the courtesy of owners and custodians of drawings and prints. It is by a study and comparison of these that much illumination is cast over the gradual development of the great architect's work. Amongst the many illustrations of plans and views, which tell unfortunately of a great amount of lost opportunity, there is nothing so beautiful as the two lower illustrations on page 238, which epitomise the whole charm of the delightful little amorini which show the art of Grinling Gibbons and Arnold Quellin at its best. The great amount of detail included in the volume must have involved much painstaking and careful work. The oversight of such a mass of plan and detail must have been a formidable task. A very interesting plate shows a large bird's-eye drawing in pencil and ink of Whitehall Palace, as existing before the fire in 1697-8. What an interesting and beautiful congregation of buildings it all is!

This volume, the writers of which are Mr. Arthur T. Bolton and Mr. H. Duncan Hendry, and others which have been issued, show what valuable work the Wren Society is doing, and we hope the profession is giving it adequate support.

*The seventh volume of the Wren Society, 1930. The Royal Palaces of Winchester, Whitehall, Kensington and St. James's. Sir Christopher Wren, architect for their Majesties King Charles II., King James II., King William III. and Queen Mary II. and Queen Anne, 1660-1715. To which are added some additional designs for Hampton Court Palace, supplementary to Vol. IV., together with an account of Marlborough House, St. James's Park, and two plans of Buckingham House. Issued only to subscribers. Oxford: University Press.

THE ARCHITECTS' (REGISTRATION) BILL

In the House of Lords, Lord Crawford moved the second reading of the Architects' (Registration) Bill. He reminded the House that in the autumn of 1928 they passed through all its stages a Bill dealing with the registration of architects. The Bill was crowded out in the House of Commons owing to pressure of business. The present measure was based on the same principle—a fundamentally domestic object—which underlay the previous Bill. Their desire was to improve the status and the training of architects, and in so doing to raise the status and standard and practice of architecture.

After detailing briefly the provisions of the Bill, the noble lord said the measure was drawn on very broad and generous lines. It was extremely catholic in its acceptance of candidates for registration. The Council, the central executive body, was based largely on representation by proportionate numbers of the chief societies interested. Every 500 members of certain specified societies had the right to nominate one member to the Council. Others were nominated as laid down by the terms of the Statute itself. Finally, the Education Board, which, of course, had long existed, though without Parliamentary and statutory sanction, was carefully defined in the Second Schedule, and it would, in effect, be the first recognition by the State of the importance to the country as a whole of education in architecture as such. Their lordships would, in committee, be asked to make a number of drafting amendments, though he hoped it would not be necessary to alter anything of substance in the Bill itself. Here and there might be disparities and contradictions, which he hoped their lordships would assist him in correcting. But the architectural profession as a whole was united in thinking that such a measure was desirable, and he hoped that, now the Bill had passed through one House of Parliament already, and as they had considerable time available in the House of Lords, they would be able to pass it through all its stages and place it ultimately on the Statute Book.

Lord Parmoor, the Lord President of the Council, said that, in reference to the basic principles of the Bill, the Government desired to give all the assistance and encouragement in their power. But he thought the Bill did want a very considerable amount of redrafting in order that it might be made clear, and that no difficulties might arise in future.

The Bill was read a second time, and the committee stage fixed for Thursday, May 7.

OBITUARY

Edward John Partridge, F.R.I.B.A.

It is with regret that we record the death of Mr. Edward John Partridge, at the age of 63. Mr. Partridge, who once described his architectural education as by "articles, evening classes and coaching, and Continental travel," was a worthy type of the architect-surveyor, for in addition to receiving the gold medal of the Society of Architects (of which Society he was a past-President), he practised largely as a surveyor and took the gold medal, and was both Crawter and Driver Prizeman of the Surveyors' Institution. He was also a Fellow of the Institute of Arbitrators. He had held the appointments of architect and surveyor to the Richmond Board of Guardians, the Richmond Vestry, and the Earl of Dysart's Surrey Estates. His works included the Infirmary, dining-hall and administrative blocks of the Richmond workhouse; printing works; branch banks for Barclays Bank; and numerous residences and business premises, especially in Surrey.

Widening of Streets, Kensington.

The Kensington Borough Council have received communications from the London County Council sanctioning the undermentioned loans :—£30,000 for Kensington High-street Improvement; and £14,000 for High-street, Notting Hill, Church-street, and Uxbridge-street Improvement.

ILLUSTRATIONS

PLATES.

All our plate illustrations this week are from drawings in the Architectural Room at the Royal Academy. Following are notes on the buildings illustrated :—

"Unilever House," E.C.

This new building is now being erected on the Victoria-embankment at Blackfriars. An article on the work, together with a list of the sub-contractors, was given in our issue for January 9, 1931. The general contractors for the foundation work are Messrs. Holland and Hannen and Cubitts, Ltd. The architects are Sir John J. Burnet, A.R.A., and Partners, with Mr. J. Lomax Simpson as consultant architect.

New School for the Merchant Taylors' Company, Sandy Lodge.

The form of the plan of this building has been largely conditioned by a desire that all the classrooms and working portions of the school should have a southerly aspect. This has meant two long arms, each two stories high with through ventilation, and each looking the same way, i.e., with their corridors on the northern side. These two arms turn towards each other at the west, and are linked together by three arches and a low clock tower, beyond which are the playing-fields, laid out on the building-axis. The space enclosed by the arms, an area of some 300 ft. by 120 ft., will be turfed, except where a broad paved meeting-place connects together the library block and the museum block, more or less in the centre. Across the east end the arms are joined together by the assembly hall, which is on the first floor, with access and cloakrooms below. The dual traffic of the two arms is shepherded through a low half-moon cloister to the great entrance gate with its porter's rooms, and beyond this, as the crown of the plan, will eventually be the chapel, its east end falling to the river Colne.

To the south and the north of the assembly hall and the cloisters lie the headmaster's house, and the dining-hall and kitchens, each joined to the main block by an equal wing. The forecourts thus formed give also end access to the assembly hall. To the north of the main block a large secondary paved quadrangle gives access to the gymnasium, changing rooms, Scouts and O.T.C. quarters, the workshops and fives-courts, and provides an area for parades. A further independent group of buildings to the north again will include the boiler-house and other necessary service buildings. The boarding-houses (of which one only is proposed at the moment) will be grouped along the main east to west private road, which runs through the whole estate.

The walling materials are 2 in. bricks, multi-coloured; the roofs tiled; stone dressings to the windows of the assembly hall, and a stone cornice; the windows generally, except in the domestic parts, are of steel, and mostly open on horizontal pivots. The general character aimed at has been an expression of the dignity of the material, with as much of modernity as the window problem involves.

The general contractors are Messrs. Holland and Hannen and Cubitts, Ltd. Other firms associated with the work include Trussed Concrete Steel Co., Ltd., foundations and concrete; Stuarts Granolithic Co., Ltd., cast stone; Crittalls, Ltd., and John Gibbs, Ltd., windows.

Messrs. William G. Newton and Partners are the architects.

National Provincial Bank, Princes-street, E.C.

These premises occupy a large corner site near the Bank of England and are now approaching completion. The general contractors are Messrs. John Mowlem and Co. Sir Edwin Cooper, A.R.A., is the architect.

Lloyds, Leadenhall-street, E.C.

A full description of this new building was given in our issue for March 30, 1928, together with a list of the firms and artists associated with the work. Messrs. John Mowlem and Co., Ltd., were the general contractors.

Sir Edwin Cooper, A.R.A., is the architect.

Dorchester Hotel, Park-lane, W.

An article on this new hotel was given in our issue for April 24, together with a list of the firms and others associated with the work. The general contractors were Sir Robert McAlpine and Sons.

Messrs. W. Curtis Green, A.R.A., and Partners are the architects.

University College of Hull: Science and Social Building.

This is one of the first two buildings to be built for the new University at Hull. It is a quadrangular building, and on the north side of the quad. are situated the science departments. On the ground floor there is a department of physics, on the first floor chemistry, and in the roof there is temporary accommodation for the zoology department. In addition to the main laboratories, preparation and lecture rooms, there are numbers of smaller research rooms on each floor.

On the south side of the quad. is the social part of the building, which consists of men's and women's common rooms, writing rooms, and changing rooms for both staff and students. This part of the building also holds temporary accommodation in the form of a library, refectory with a kitchen and service rooms and an assembly hall.

The building has been so planned that as permanent buildings for the hall and library, etc., are erected the temporary spaces now occupied by them can be used for science or social purposes, as required. Each part of the building is adequately supplied with lavatories on each floor, and there are baths and shower fittings in the changing rooms.

In the selection of the materials great care has been taken to choose only those that would require the minimum of maintenance. Externally, there is no paint except on the steel casements, and these were first of all sherardised as a protection against rust. They were supplied by Messrs. H. Hope and Sons, of Birmingham. The window and door frames are in teak and the doors in oak. The cornice is in concrete constructed with reinforcement, which is continued into the Kleine floor at that level and becomes a constructional feature. The brickwork is arranged so that there are light quoins around the windows, doors and on the angles of the building; the remainder is of a darker colour multi-coloured brick. The whole of the facing bricks were supplied by the Claxton Brickworks, near York. They are 2 in., and have rustic or torn faces. The roofs are covered with hand-made tiles, supplied and fixed by Messrs. Ames and Finnis, and the flats above the slopes are covered with copper supplied and fixed by Messrs. Fredk. Braby and Co., Ltd. The general contractors were Messrs. Quibell and Sons, of Hull.

Mr. W. A. Forsyth, F.R.I.B.A., is the architect.

Flats, Kensington-square.

The illustration shows a portion of a large block of flats now being erected on the south-east corner of Kensington-square. The flats have been designed with a view to supplying the much-needed demand for a flat at a rental of under £300. The accommodation provides two bedrooms, dining hall, living-room and kitchen, with additional bedroom accommodation on the top floor. There are five flats at each floor level, which are approached by one main staircase. The roof is laid out as a sitting-out place for tenants in the building. A portion of the ground floor is being used as a garage, which will enable tenants to keep their cars on the premises. The contractors are Messrs. Leslie and Co., of Kensington-square, W.8.

The architects are Messrs. Richardson and Gill, FF.R.I.B.A.

Design for a Cathedral.

The design is intended for a cathedral on high ground, overlooking a country town. The exterior would be carried out in rubble walling, with stone dressings and tiled roof, the interior being plastered. The plan gives a wide nave and central space for the congregation; the clergy are seated in the first bay of the eastern arm, with the choir placed behind the altar and reredos. There is a large morning chapel over the narthex at the west end. The design is by Mr. Roger A. P. Pinckney.

Proposed Licensed House, St. Albans, Herts.

This design of a licensed house for Messrs. Benskins, Ltd., has been adopted for an important four-way site on the Harpenden-St. Albans-road. The plan was especially designed to facilitate quick and easy service and supervision in all departments. A lunch and tea-room with access to garden is an important part of the plan, and much is made of the modern tendency to serve refreshments out of doors. A broad approach for cars is provided and the house is designed and placed to be a striking object from all directions.

Mr. H. P. G. Maule, F.R.I.B.A., is the architect.

Villa at Biarritz.

This house has been designed for an Englishnobleman, on a wooded site high on the cliff overlooking the Atlantic. The special requirements were long horizontal windows to the principal rooms, to embrace the wide vistas. The entrance patio is after the Spanish manner, and the garden façade more Italian. The west façade directly faces the sea, and is mostly occupied with the service quarters. Loggias had to be contrived to face different aspects and to avoid the prevailing winds, and large overhanging eaves after the Basque manner, to keep the direct mid-day sun from the windows. The materials are the local pink-coloured stone for dressings, and fillings of light colour wash.

Mr. Oliver Hill, F.R.I.B.A., is the architect.

Proposed Municipal Buildings, Chesterfield.

The Chesterfield Town Council proposes to appoint an architect to advise on the lay-out of Rose Hill estate and to prepare preliminary plans for municipal buildings. A sub-committee is to inspect municipal buildings in other towns. The Minister of Health has sanctioned a loan of £24,750 for the purchase of the estate. The Improvement Committee has reported that no site for central baths will be available on the Rose Hill estate.

Bolton Infirmary Extensions.

The comprehensive scheme of extension of the Infirmary launched a year or two ago comprises, as will be remembered, the new X-ray department, twin operating theatres and recovery wards already built, as well as pathological and mortuary block at present under construction. There is also in prospect a new massage and out-patients' department and a new boiler-house, casualty department reorganisation and laundry reconstruction. In addition to these the scheme provides for ward extensions on a large scale which will, when circumstances require it, and funds permit, add about 180 beds to the Institution. The first instalment of this bed accommodation was opened on Saturday last, May 2—a ward block containing two new wards of twenty beds each and each with two single-bed wards in addition. The architects, Messrs. Bradshaw Gass & Hope, FF.R.I.B.A., have provided the maximum of light and air in the wards, and the finish and equipment are upon the most up-to-date lines. The external finish of the buildings is of sand-faced bricks of soft colouring, and the roofing of the staircase tower is of Westmorland green slates. The contractors for the building work were Messrs. J. & N. Dickinson (1922), Ltd., the heating and lighting being in the hands of Mr. R. Walsh and Messrs. Walter Bradley (Engineers), Ltd., of Bolton.

ROYAL ACADEMY EXHIBITION, 1931.

Lloyds, Leadenhall Street, E.C. : Entrance Corridor.

SIR EDWIN COOPER, A.R.A., Architect.

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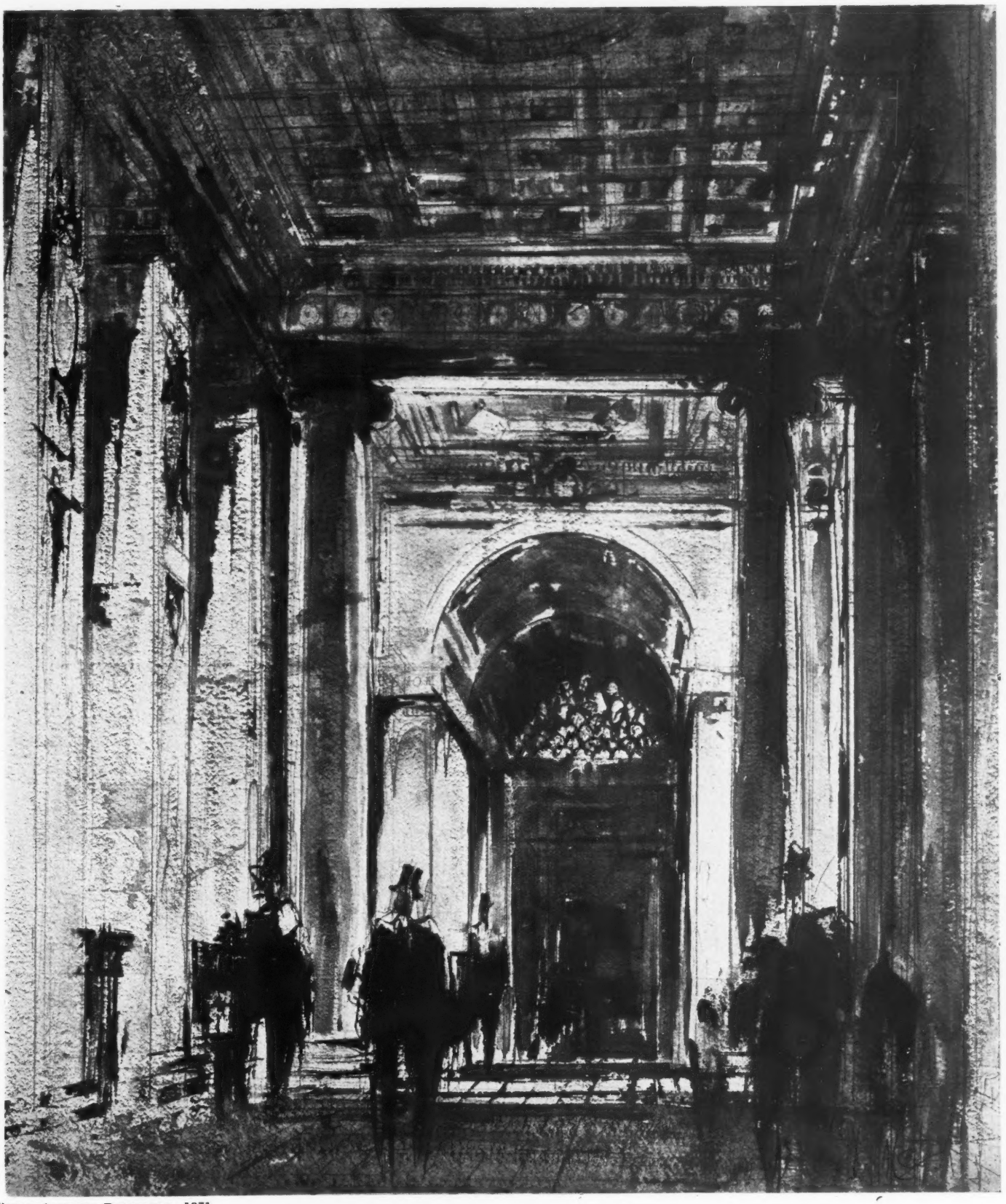

ROYAL ACADEMY EXHIBITION, 1931.

Lloyds, Leadenhall Street, E.C. : Ante to the Room.

SIR EDWIN COOPER, A.R.A., Architect.

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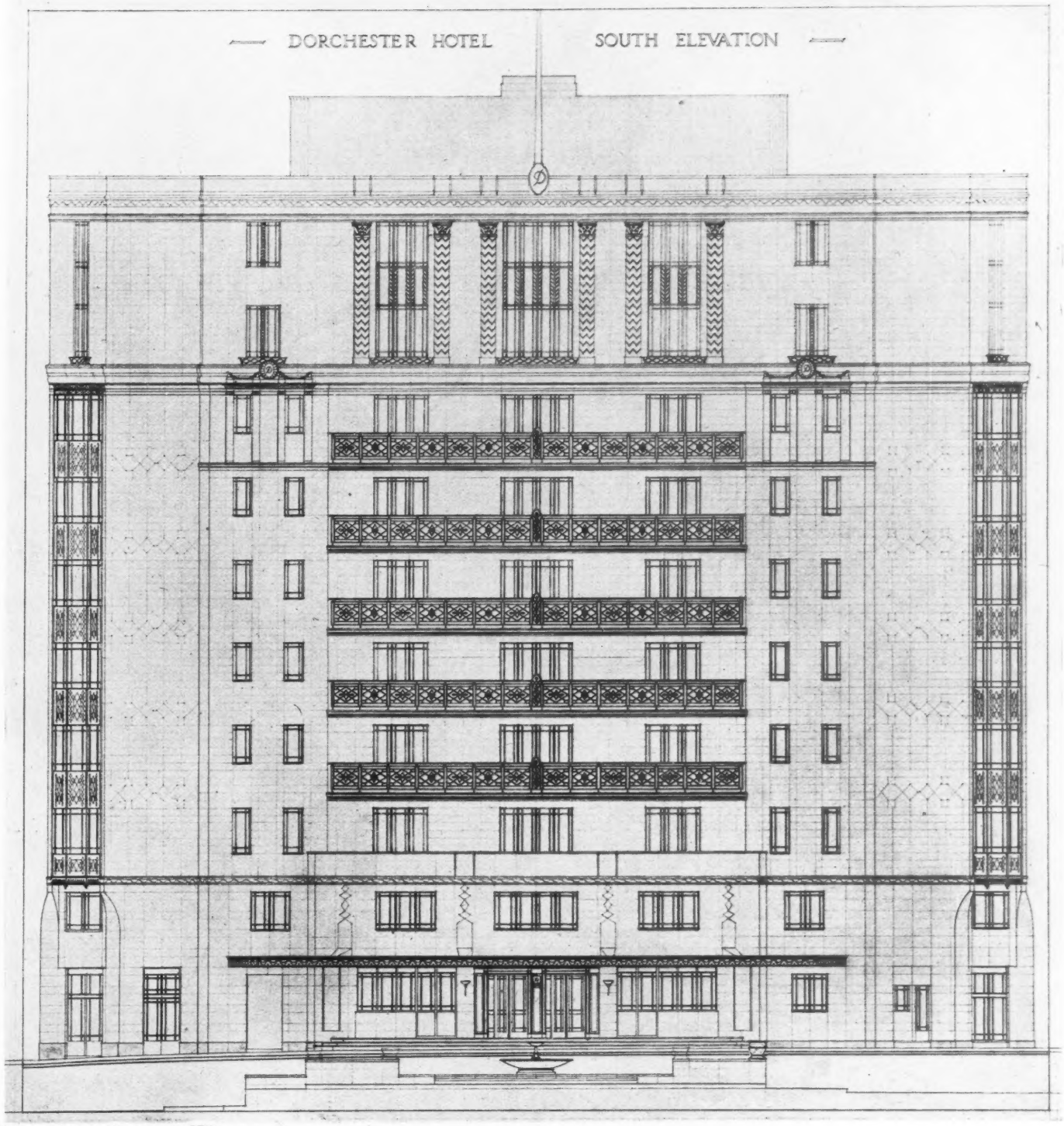

ROYAL ACADEMY EXHIBITION, 1931.

Dorchester Hotel, Park Lane: South Elevation.

MESSRS. W. CURTIS GREEN, A.R.A., & PARTNERS, Architects.

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ROYAL ACADEMY EXHIBITION, 1931.

MR. W. A. FORSYTH, F.R.I.B.A., Architect.

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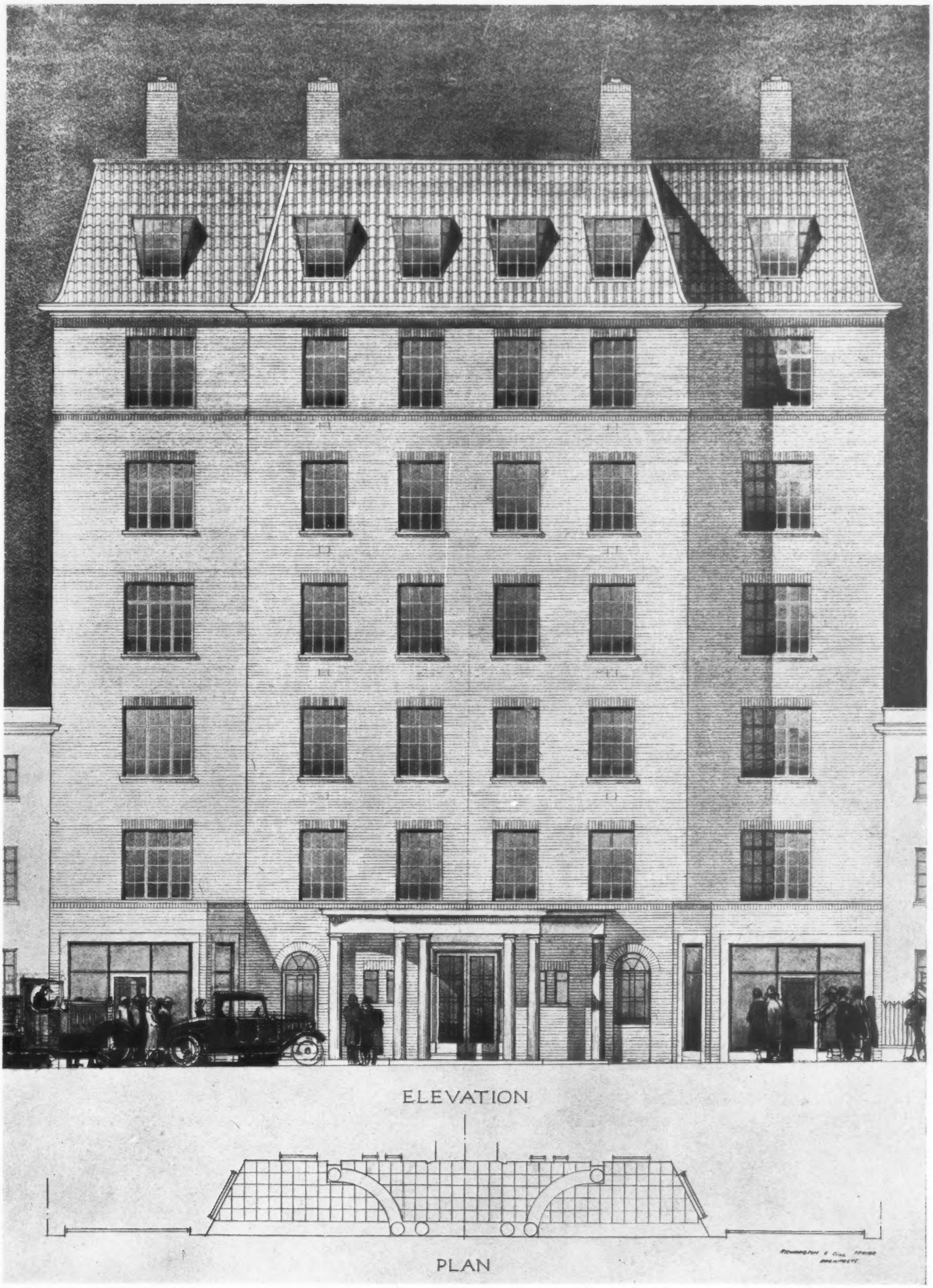

ROYAL ACADEMY EXHIBITION, 1931

Flats, Kensington Square, W.

MESSRS. RICHARDSON & GILL, FF.R.I.B.A., Architects.

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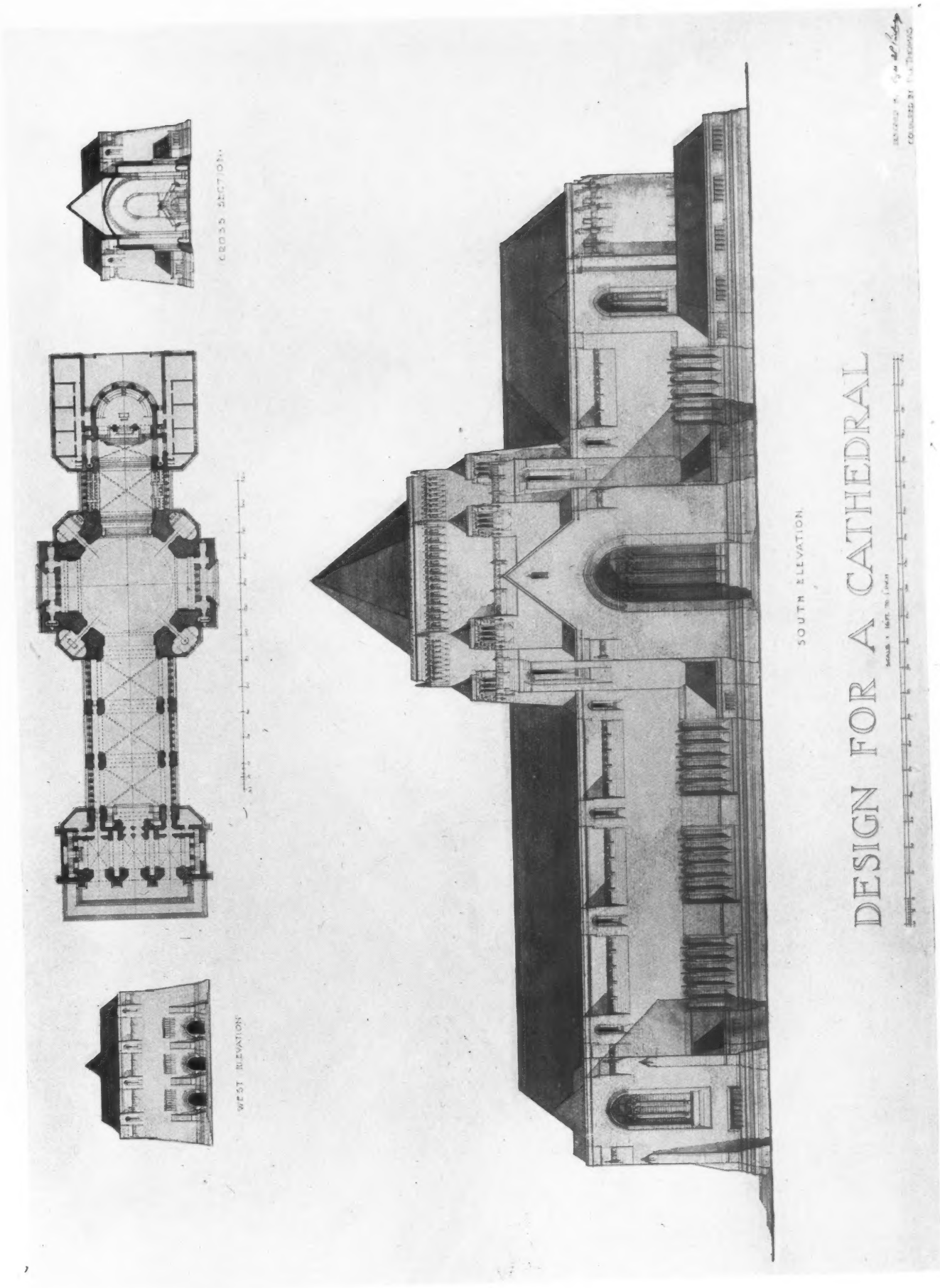

By Mr. Roger A. P. Pinckney.

Royal Academy Exhibition, 1931.

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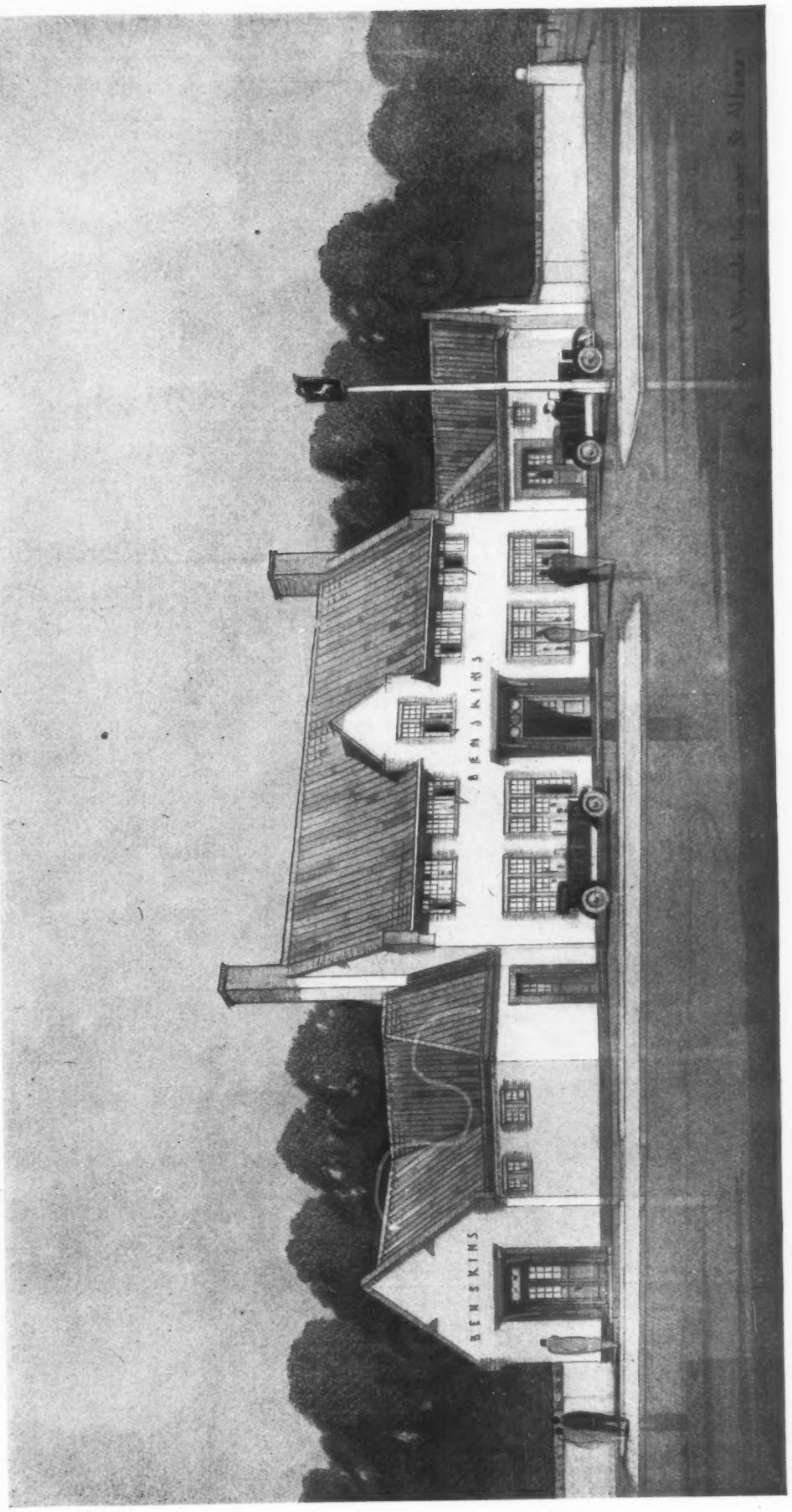

ROYAL ACADEMY EXHIBITION 1931.

A Wayside Inn, St. Albans.

MR. H. P. G. MAULE F.R.I.B.A., Architect.

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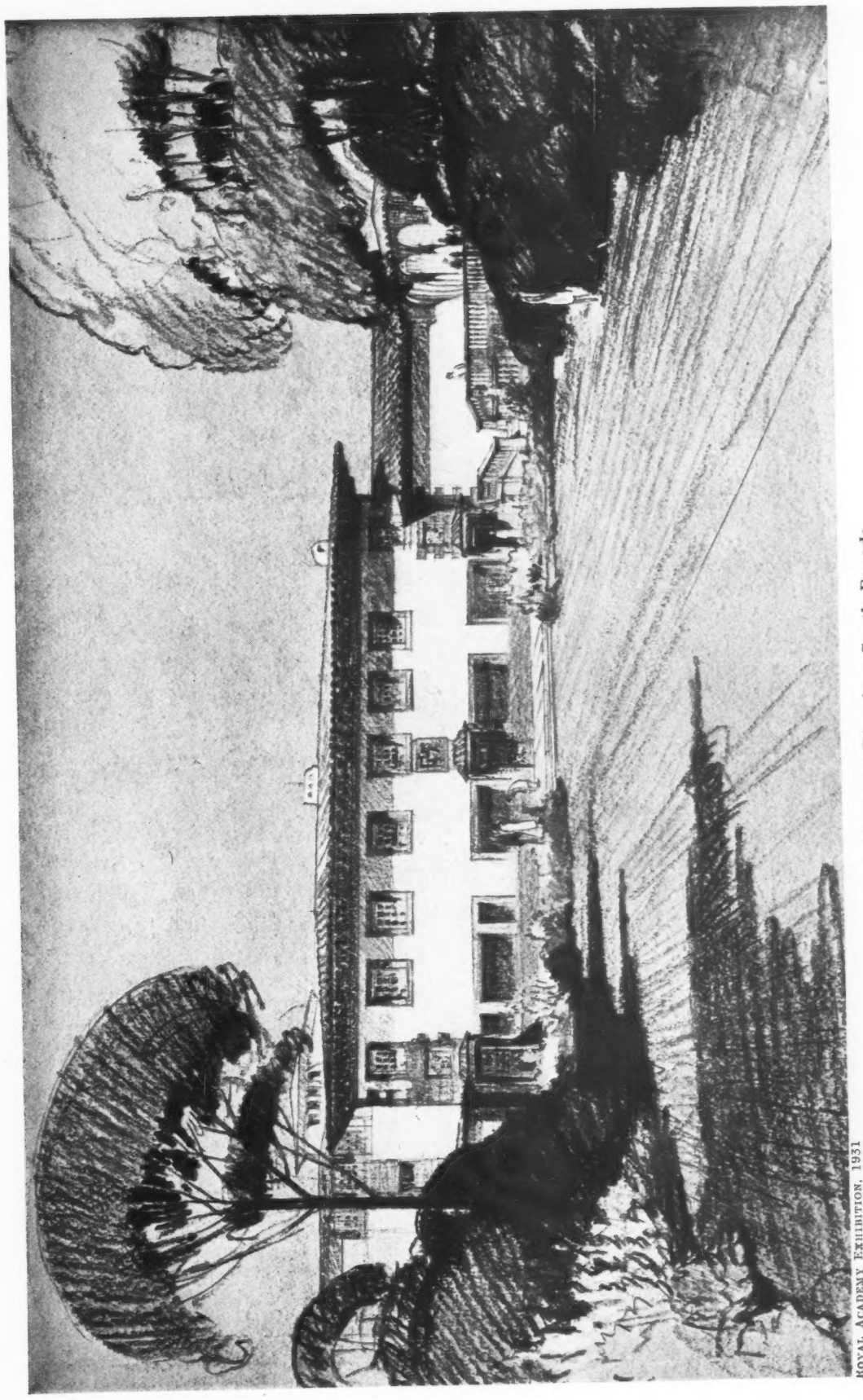

A House at Biarritz : South Façade.

MR. OLIVER HILL, F.R.I.B.A., Architect.

ROYAL ACADEMY EXHIBITION, 1931

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EGYPTIAN STELÆ—II

By ARNOLD WHITTICK.

[A previous article appeared in our issue for January 9.]

The remains of only one pre-dynastic Royal stele have, as far as I am aware, been found. It is a fragment discovered at Abydos by Sir Flinders Petrie, "in what is probably the tomb of Narmer," a king who reigned shortly before the first dynasty.* The fragment, according to its discoverer, is carved with relief and shows what appears to be "part of a decorated façade." "If it is," he continues, "the royal name was probably in the doorway below it, as on the inscription of King Ra."†

Many fragments of Royal Stelæ of the first dynasty have been found at Abydos, but only two complete examples remain, one being of King Zet and the other of King Merneit.‡ That of King Zet is not only the oldest complete remaining Egyptian stele, but a work of high artistic value. It was discovered in 1895 by Amélineau, who gave it the name of the "stele of the serpent king," under which name it has become famous and is now one of the treasures of the Louvre (Fig. 4). It is about 5 ft. high by 2 ft. 3 in. wide and 8 in. thick, of rectangular shape except for a slightly curved top. In the sunk panel that occupies two-thirds of its face are sculptured in low relief a falcon sacred to Horus standing on a framework, the lower part of which seems to be the façade of a tomb or temple, while the space over it is occupied by the serpent, which indicates the name of the king.‖ These representations are related in a harmonious design, and even after so many centuries it is still possible to observe how beautifully cut is this relief. The draughtsmanship and rendering of the falcon are masterly and are rarely surpassed in later Egyptian art. A naturalist has remarked to me how convincingly lifelike is the poise of the snake. It is, I think, the most beautiful of all the Egyptian stelæ, and must rank as one of the masterpieces in the history of the subject. In design and treatment of relief it would serve well as an inspiration and a model to modern monumental sculptors.

The stele of Merneit, found by Sir Flinders Petrie, and now at Cairo, is a similarly proportioned slab to that of Zet, but its relief work being of a simpler and more elementary kind, it is by no means of the same æsthetic interest (Fig. 3). It is about 5 ft. high by 2 ft. wide, with a semicircular top and a sunk panel occupies about two-thirds the height of the slab. In the panel according to Sir Flinders Petrie is "the emblem of Neit apparently the distaff, with two arrows across it," which, he says, "explains such a sign which occurs on a seal and on some of the black stealite cylinders of very early age." "The hoe, mer, and the mouth, r, complete the inscription."¶

Of the other Royal stelæ of the first dynasty, Sir Flinders Petrie found a fragment of another similar stele of Merneit, one of Qa, and one of Mersekha. Amélineau found two fragments, one of Qa and one he was unable to identify. Two stelæ each have thus been discovered of Merneit and Qa. The stelæ of Qa and the unidentified example are similar in design to that of the serpent king, both showing the façade and falcon, but neither is so exquisite in workmanship.

Numerous small stelæ of Royal officials and domestics of the first dynasty were found in the surface sand, from which circumstance, and from their design, and from considerations already advanced, it may be assumed that they were, like the Royal stelæ, set upright in the open.

Two interesting Royal stelæ of Persaben (Fig. 5), a king of the second dynasty, were found at Abydos by Sir Flinders Petrie. They were discovered at the entrance to the south of the King's tomb, which seems to indicate a slight change in the position of Royal stelæ in relation to the tombs since the first dynasty. These stelæ of Persaben are of grey syenite about 5 ft. high, and taper considerably from a width at their foot of about 2 ft. 3 in. to a rounded top. In the centre is a panel enclosing hieroglyphics, above which slight traces of a figure may be discerned. Sir Flinders Petrie says, with reference to this, that the "figure of Set above the name has been hammered away in later times."*

From the third dynasty onwards the remains of stelæ are plentiful. It will not be necessary to deal with them in detail as they conform generally to distinct types, and within those types they show a great similarity. Rarely do we find stelae so interesting artistically as that of the serpent king, the explanation probably being that the stelæ of a later period were probably mostly commercial products turned out to stock patterns, whereas the larger stelæ of the first dynasty, simple as they are by comparison, were, being Royal stelæ, probably the work of the chief sculptors of the age. It will suffice to note the principal forms of later stelæ and to cite a few typical examples.

There are, roughly, two principal types

* According to Mr. Arthur Weigall ("Guide to the Antiquities of Upper Egypt," London, 1910, p. 7, sq.), Narmer, King of Thenis, united Upper and Lower Egypt by his marriage with the heiress of the kingdom of Buto. Their son Thera, who ruled over both kingdoms, founded the capital of Memphis, but Abydos was still used as the Royal burial place.

† Abydos, Part. I (London, 1902), p. 8.

‡ The kings of the first dynasty according to the names on the monuments are given by Sir Flinders Petrie in the following order:—Aha, Zer, Zet, Merneit, Den-Setui, Azab-Merpaba, Mersekha, Qa-Sen. For the traditional names of Manetho quoted by Julius Africanus and Eurebius (see Sir Wallis Budge, "History of Egypt" (London, 1902), Vol. I, p. 130).

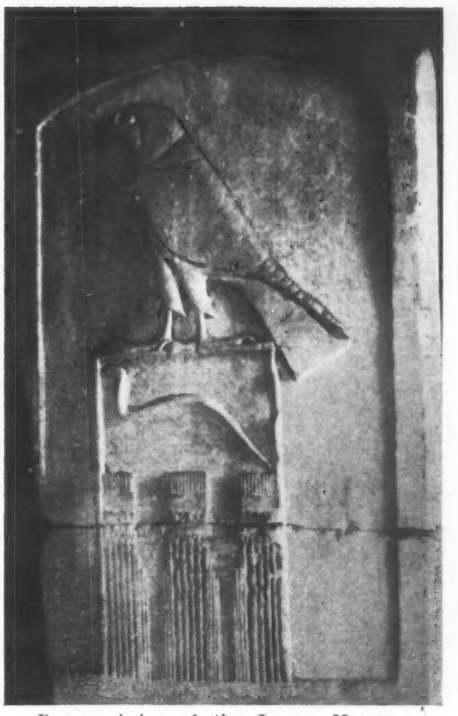
‖ Amélineau (op. cit. p. 243) erroneously identified the serpent king with Den, the fifth king, which would make the stele of Merneit an older example. Sir Wallis Budge (op. cit. Vol. I, p. 191) identifies the serpent king with Ateth, or, according to Manetho Kenkenes," the third king of the first dynasty. Kenkenes and Ateth correspond, according to Sir F. Petrie, to Zet. Sir Flinders Petrie would appear to ascribe the stele to Zet, for he says ("Royal Tombs of the First Dynasty," p. 6) that no stele has been found of Den, but one of Zet. Benedité is probably, therefore, correct in saying that it is "le plus ancien monument historique du monde" ("La Stele dite du roi Serpent Monuments et Mémoires (Piot), 1905, p. 5).

¶ Op. cit. p. 26.

* "The Royal Tombs of the Earliest Dynasties," 1901, p. 33.

By permission of the Egyptian Exploration Society.

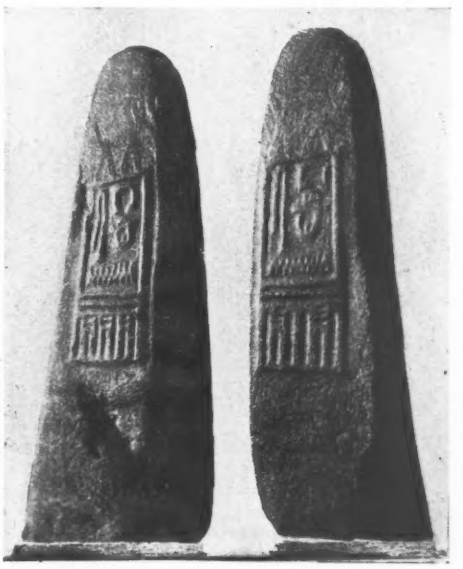
FIG. 3.—STELE OF KING MERNEIT, THE FOURTH KING OF THE 1ST DYNASTY. FROM ABYDOS, NOW IN THE CAIRO MUSEUM.



By permission of the Louvre Museum.

FIG. 4.—STELE OF KING ZET, THE THIRD KING OF THE 1ST DYNASTY (KNOWN AS THE STELE OF THE SERPENT KING). FROM ABYDOS, NOW IN THE LOUVRE.

This is the oldest complete monument yet discovered.



By permission of the Egyptian Exploration Society

FIG. 5.—TWO STELÆ OF PERSABEN, A KING OF THE 2ND DYNASTY. FROM ABYDOS, NOW IN THE CAIRO MUSEUM.

By permission of the Egyptian Exploration Society.

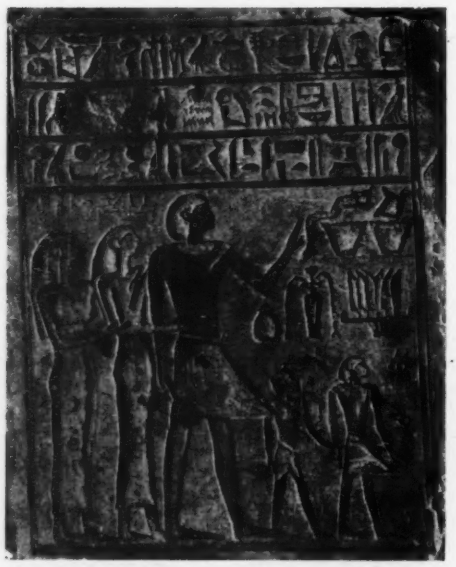
FIG. 6.—STELE OF NEKHTYK, ASCRIBED TO THE 11TH DYNASTY.

From the cemeteries of Abadiyeh and Hu, now in the Cairo museum.

of stelæ throughout Egyptian history. That which is by far the commoner follows approximately the shape of the Merneit stele, being an upright flat slab, of slightly varying proportions of width and height, with a rounded top. Figures on a small scale, mostly in profile, were usually carved on some portion of the face, while the greater part was generally covered with hieroglyphics, the purport of which is prayers on behalf of the deceased and accounts of the deceased's circumstances in life. In a large number of the earlier examples the figure carvings are little more than representations by means of incised lines, often crudely rendered, similar in method to that by which the hieroglyphics are shown. This method developed to a style of cavo-relievo, which will be noted later. It is from these stelæ that an important part of our knowledge of the ancient Egyptian people is derived.

This form of stele begins to appear with some frequency at the beginning of the Middle Empire. Two examples, but with square instead of rounded tops, and two that may be regarded as typical in execution, were discovered in 1898-9 by Sir Flinders Petrie in the cemeteries of Abadiyeh and Hu. Their discoverer ascribes them to the earlier part of the eleventh dynasty, and they are of "Nekhtyk, and of Hotep-Agera with his two wives, Khut and Afu."† That of Nekhtyk (Fig. 6) shows, slightly to one side, the profile of a man, and the other (Fig. 7) shows the three profiles, all facing one way of Hotep-Agera and his wives; the remaining spaces on the slabs being inscribed with hieroglyphics. All the representations are rendered by the customary incised lines. Another typical example, also of the eleventh dynasty, from Kûrnah, and now in the British Museum, is that of Thetha, a chancellor and councillor of the reign of King Antef Uah-Ankh. This limestone stele, which has the semi-circular top, is inscribed on its upper part with hieroglyphics, which give a narrative of Thetha's career and a prayer for offerings and happiness in the kingdom of Osiris. The lower part contains a figure in profile, evidently of the deceased, with two figures on a smaller scale to his left. I will have occasion to refer to later examples of this type of stele in the next article after a consideration of the other principal type.

(To be concluded.)



By permission of the Egyptian Exploration Society

FIG. 7.—STELE OF HOTEP-AGERA WITH HIS TWO WIVES, KHUT AND AFU, ASCRIBED TO THE 11TH DYNASTY.

From the cemeteries of Abadiyeh and Hu, now in the Cairo museum.

† "Diospolis Parva" (London, 1901), p. 41.

LAND VALUATION AND TAXATION

THE speech of the Chancellor of the Exchequer to the Committee of Ways and Means on his proposals to tax the land is too vague to enable any detailed criticism to be made. In our issue for August 29 last we gave a brief summary of the Land Valuation Bill as first introduced, and since its reintroduction we have studied its provisions and they are open to serious objection in many particulars, but we have withheld detailed criticism in case these proposals should be modified in the provisions now to be introduced in the Finance Bill. At the present moment we must confine ourselves to one or two observations on the Chancellor's recent speech.

It is embarrassing to approach this question from the point of view presented by the Chancellor that the community possess a right to the ownership of the land, and that if private individuals continue to possess a nominal claim to the land they must pay a rent for it. To an ever-increasing extent land is not inherited, but has been acquired by purchase, and the community have no more right to claim a rent on the purchase money than they have to claim a rent on any other form of investment, and the claim of the community (if any) must be confined to that very doubtful element, the increase in the value created by public expenditure. In this connection the fact is often overlooked that the landowner himself has made an expenditure which is directly to the benefit of the community. In many cases, for instance, he has been called upon to make up the private streets upon which his property abuts, so that, at his expense, they have become public thoroughfares, and if the community claim the land then they owe some contribution to him on this head.

But perhaps the most disturbing element in the Chancellor's speech is to find him comparing the valuation for rating purposes with the purchase price of properties, in certain examples which he gave, and expressing the hope that his proposed valuation will form the basis of the purchase of land for public purposes, and also, before long, the basis of local rating. Has he considered the implication from this? It must either mean that the value to be attached to the land under the proposals to be made must be a very substantial value involving a high tax at even one penny in the pound, or it is utterly impracticable.

Then, again, if the rateable value is to be considered as in any way representing the purchase price, has it been considered what this involves? The rates vary between 10s. in the pound and 26s. in the pound; even in country districts they are 12s. 6d. in the pound, added to the rates the landowner has to pay income tax at 4s. 6d. on the Assessment under Schedule A, and there are other charges, such as tithe. Further than this, the proposals of the Chancellor lose sight of legislation now before Parliament, under which the Town and Country Planning Bill the owner of land is to be made liable to the whole of any betterment which is attributed to his property, and also, as an alternative, the whole cost of any public improvements from which it may be deemed his property has derived benefit.

Moreover, it has to be borne in mind that since the land taxes were last introduced the public acquisition of land has been immensely favoured by the Acquisition of Land (Assessment of Compensation) Act, 1919, and the grievance that land has been held up from development has largely been removed.

This Cabinet appears to work in watertight compartments, each member being oblivious to the effect of legislation introduced at the instance of other members, but the Chancellor of the Exchequer, before he took office on this last occasion, had frankly declared that taxation was a simple method of introducing Socialist measures, and, on the very meagre statement he has now made, it would almost appear that his intention is by such means to nationalise the land.

No real criticism can be attempted until the actual proposals are made public, but if they at all follow the Bill, lately introduced, we may say at once that those proposals will require careful attention, as, in many respects, they involve a valuation which includes expenditure made directly by the landowner himself.

BOOK REVIEW

The Story of Architecture in England. By WALTER H. GODFREY, F.S.A., F.R.I.B.A. 2 vols. 6s. 6d. each. London: Batsford.

This is a concise and ably-written account of architecture in England, written primarily for the use of schools and private study. The author succeeds in showing what manner of people built the fine monuments that survive and what were their aims and objects and conditions in designing them. The first volume traces the story from the earliest Roman times to the close of the fifteenth century. This great period of church building forms a fascinating study, and one may examine its earliest evidences in Roman basilica and rude Saxon chapel, trace the Norman influence and the gradual evolution of the Gothic style through all its phases until the glories of the Perpendicular, which waned with the coming of the Renaissance. Churches form the major part of the first volume, but the lesser and often equally interesting buildings such as the castles, manor houses, monastic buildings and their accessories, barns, gate-houses, and market crosses, are carefully dealt with. Vol. 2 traces the development of architecture from Tudor times to the Georgian period, embracing successively Elizabethan and Jacobean, Stuart, Palladian, and Georgian architecture, ending with the Classic Revival, the brothers Adam, and the neo-Greek style of the Regency. We commend the volumes on account of their entertaining and instructive character, their well-chosen illustrations, plans and details, which are numerous. Many of the reproductions are from drawings of well-known architectural artists of different periods whose works to-day are highly prized and eagerly sought after. They give in themselves a short history of architectural draughtsmanship. The price of the two volumes is well within reach of the student and all those who are interested in the fine old buildings yet remaining to us.

THOUGHTS ABOUT BUILDING

A PAPER on this subject was read by Mr. M. H. Baillie Scott, F.R.I.B.A., before a recent meeting of the Birmingham Architectural Association. The lecturer said he had called his address "Thoughts About Building." because it allowed ample room to ramble, and he rather favoured a rambling quality both in talking and building. And especially, he thought, in building, for the kind of house which rambled in a casual unpremeditated way always appealed to him more than an exactly symmetrical and formal façade. In his thoughts about building he was much inclined to think mainly about old buildings, which seemed to him better than most modern work, and he would refer mainly to old country building, for here it seemed to him the old builders possessed a magic power which we had lost. It seemed to be quite an obvious and easy thing for them actually to adorn and improve the landscape with their human contribution to its beauty. They did more than that; they even seemed to interpret and render articulate its unspoken message. Not only their houses and cottages, but their machinery helped to beautify the land: the windmill on the hill, or the water-mill by the stream, not only fail to strike a discordant note—they seemed in some mysterious way to be entirely harmonious. He supposed the main reason for this harmony between nature and the building art in the old days was because the old builders were themselves more closely associated with the land; they were what one might call "wholemeal" men, and had not been specialised in any way. They might remember Carlyle's reference to that original red-coloured infant which developed into so many various types in the mill of modern civilisation. For many professions and callings this might be an advantage, but in building, where an unresolved combination of artist, engineer and business man was desirable, the specialised human was a failure.

There seemed to be a tendency nowadays to recognise no essential difference between the architect and the engineer. He thought there was a considerable difference. If they thought of the architect as a kind of animated cocktail, composed in definite proportions of artist, engineer, and business man, he thought they would find it was the artist that put the gin in the engineer, the artist who put the kick in the cocktail. The engineer was not himself concerned with the artistic spirit, and did not recognise æsthetic claims. For him, a bridge across a running stream, a mere convenience was to him and it was nothing more, and he would quite cheerfully and blindly destroy the whole character of some rural beauty spot with his girders and his ferro-concrete. He made no claim to create beauty, but was only concerned with practical efficiency. There was a modern school of architects who vainly imagined that in solving their practical problems they were doing all that was required of them, and that in so doing beauty would kindly oblige by stepping unasked across the threshold. The best that could be said for a creed of this kind was that it saved the architect a great deal of trouble. For what was the normal process of the architect who had æsthetic ideals? He made his plan and solved his practical problem perhaps quite easily the first time, but he must be constrained to recast his design again and again to reconcile the conflicting claims of utility and beauty. He might bring down at the first shot that clumsy and ungainly fowl, utility, but it was more difficult to kill with the same stone the splendid bird of paradise.

He had said that the architect was essentially a kind of "mixed drink," and that the quality of his work mainly depended on the proportion and character of the artistic spirit. It was chiefly in country building that artistic sensitiveness was desirable. Most of our modern towns and suburbs would not be much the worse for a little more ugliness in their streets, and we might at least find some amusement, if nothing else, in the latest modernist freak there. But in the country it was different. We were jealous of its disappearing beauty, and we deplored its desecration by modern building. The kind of artistic sensitiveness that he thought the country builder should possess might be illustrated by a little story of an experience of his own.

Many years ago he was travelling in one of those homely little toy trains in the Isle of Man, where a railway station might be indicated by a board stuck in the hedge and a little wooden shanty. His companion was a water-colour artist, Mr. A. E. Brockbank, and as they looked out of the window at the wonderful scenery of the island, the artist suddenly became pale with excitement, and clutching his (the lecturer's) arm, pointed to a field where some women were working. To the average practical man there would be nothing extraordinary in this; they were merely women working in a field, but the eye of the artist recognised just that harmony between man and nature which thrilled us in old country buildings, for these working women seemed to be a part of the field in which they worked and hardly distinguishable from it. It was the artist with just such sensitive perception as this that we wanted for country building, but such an artist was the very last person in the world who got a chance of building there.

One of the most distressing features of modern England was that we were quite incapable of using the talents of our people, and the artist, unless he painted pictures or illustrated magazines, got very little recognition in any other field. And yet how very much more important it was for us that the artist should be used for decorating the world in which we lived and the land on which we stood, than that he should be confined to colouring little bits of gilt-edged canvas, however beautifully: the best in this sort, as Shakespeare said, were but shadows. But in creating a real world of beauty in building, the artist was producing the very stuff of which pictures might be made.

It was chiefly in the country, on the south side of London, that he travelled by road or rail: in Kent, in Surrey and in Sussex. And what did he see there? From London to the south coast the beauty of the land was gradually being disfigured by the curse of modern building, and on the south coast itself what words could describe the ugliness of the average watering-place, with its promenades and its piers and rows of lodging-houses? And the pity of it was that there was artistic talent which might have given us beauty for ashes in those places. Consider by way of contrast that seaside place in Wales designed by Mr. Clough Williams-Ellis—Port Meirion. This seemed to him one of the few exceptions to the general rule that modern building destroyed the beauty of the country. The building was of the simplest character: there was nothing elaborate or expensive about it: and yet it had a wonderful, romantic, seafaring quality, and its buildings were in harmony with natural surroundings. It was the work of an artist, who here, for once, had been given a chance to beautify a bit of the world with his work.

Otherwise, the only salvation we were offered from our present haphazard destruction of the countryside was what was called town planning. That was the "blessed word" which was going to give us an earthly paradise. It was surely a most unfortunate name to give to any development of the country as considered apart from the town. The essential character of the country, as such, was that it did not appear to be planned at all. Our old villages owed the chief of their charm to their casual, unpremeditated quality. The cottages in the village street were not a part of any preconceived plan. They seemed to have been placed there quite at random, like a bunch of wild flowers gathered on a country walk. Each cottage contrived to retain its individuality, and yet remain in harmony with its neighbours. There was a novel, he thought by Oliver Onions, which described how a modern architect of the town-planning sort transfixed, with the point of his compasses, the heart of an old English village; how he built there a Byzantine village hall, and then made his radiating vistas and highly artistic cottages. It was this kind of thing which made one fear the doings of the town planner in the country. One heard all kinds of highly technical talk about "zoning" and so on. There was no such thing as zoning in the old village. Here in the village street was the doctor's house, and next to it a lowly cottage: the village inn was opposite, and all sorts and conditions of men lived next door to each other, while the church dominated the whole picture. How much more really democratic was such an arrangement of dwellings than the modern grouping of high-class villa residences, with their interminable and depressing avenues of trees!

And so he dreaded the advent of the town planner in the country, destroying all its wayward inconsequence and drilling it into an artificial machine-made paradise. They might remember a book by Maurice Hewlett about a misguided enthusiast who wished to make all England a garden, and planted garden flowers in country places. He (the lecturer) wondered if it was just a peculiarity of his own, or whether anyone else would agree with him in disliking to see the more sophisticated garden flowers in wild country places? In a country wood with its proper wild flowers, primroses, bluebells and foxgloves, a rhododendron was as out of place as a rhinoceros, and the only rose which seemed at home there was the wild one. Dorothy Perkins, despite her rustic name, was out of place in a country lane! There were, of course, garden flowers which might be naturalised, and such were daffodils and primulas, for instance; but the more exotic blooms should be placed only in enclosed gardens. The trouble in dealing with the country was that we were now dominated by the urban town-bred mind, and so the town planner set out to build his Jerusalem in England's green and pleasant land, which henceforth became and remained neither pleasant nor green. He imagined he was doing a clever thing in putting a thatched roof over a petrol pump, or an artistically designed lamp standard for universal use in our villages.

What, after all, was the function of the architect? After adequately fulfilling practical demands—what we might call in Kipling's phrase the "belly need"—he should be a decorator of the world of nature—just that. If we thought of the countryside as a room, partly furnished with trees and flowers, he had to add a human contribution to all that, and, in so doing, to accentuate its appeal, instead of destroying it for ever. He believed the architect would only succeed in doing this rightly if he was country-bred and country-taught, and if, like Wordsworth's Wanderer, the foundations of his mind had been laid in the contemplation of natural beauty.

In his view the beauty of nature was the supreme thing, greater than any of the works of man. He believed it was nature which should be our inspiration, and that all our truest æsthetic instincts derive from our sense of the divinity we might discern in woods and trees, in hill and dale and stream. Let us hitch our wagon to nature. If we did not do that, we were doomed to wander aimlessly in that fantastic world of nightmares which the modernist inhabited, where all the natural beauty of the world was represented by what appeared to be a complicated proposition of Euclid. He hoped to show later a lantern slide of an old stone bridge over a stream, with an old church and some cottages, trees and fields. The buildings here might, or might not, be great works of art, but, considered as decoration of the world, they made a wonderful harmony with nature, and so fulfilled what seemed to him the highest function of the architect. If the same problem were to be dealt with now,

we should have iron girders and ferro-concrete for the bridge, with perhaps a few unnecessary concrete pylons, and God only knew in what style the church might be; but this we did know, both bridge and church would appear as aliens in the natural world and create a discord instead of a harmony there.

If we next considered the units of which country building was composed, and thought of the single detached cottage, it was in the building of these that our modern architects and builders had most signally failed. He had seen many beautiful old cottages, each with its own particular charm, but he did not think he had ever seen a detached modern cottage of any attractions. If one looked at any of the popular journals which illustrated cottages, it was only the old ones in which they would find any real beauty.

The main reason for this was entirely a matter of proportion and scale. If we regarded the ordinary house as an adult, the cottage might be considered the child, and all its parts must be reduced in scale. This was always consistently done in the old cottages, so that the smallest of these seldom had more than 6 ft. ceilings. Take any one of these and increase its vertical dimensions to the heights required by by-laws, and it at once became a distorted abortion. This question of scale was the essential factor in all architecture. We knew how in the classic orders the proportion of all the parts of column and entablature had been exactly defined, and although there was no functional or rational basis for these proportions, we rightly accepted them and found they were æsthetically sound. Very much the same sort of thing had come about in old cottage building, and, indeed, in all the old country crafts.

Even in the ordinary field gate a countryman with a good eye for gates would know how and in what degree the rails should diminish in their spacing towards the ground. And so with the cottage, the eye became trained in matters of scale to regard it in much the same way as it regarded human beings, in which we had an established ideal of beauty based on the proportion of parts, an ideal which it was impossible to base on any functional adaptability. No functionalist would persuade us to accept an abnormal length of nose on the grounds that it was all the better to smell with, or an immense expanse of eye because it was all the better to see with. It was when we were condemned to distort our cottages in obedience to the fussy faddists who made by-laws that we were obliged to disfigure the country with the abortions we saw there.

It was not so difficult when cottages were combined instead of being built separately, because then we did get a dominant horizontal dimension, even if the cottages were higher than they should be. We might regard the whole block consisting of two or more cottages as itself a single unit, and, as far as the exterior was concerned, we might achieve a satisfactory proportion. But inside, our cottage room with an 8 ft. ceiling looked like a small room in an adult house, but if we lowered the ceiling to 7 ft. it began to look like quite a large cottage room, and every inch that we lowered the ceiling added to the apparent size of the room. That was why an old cottage with its low ceilings never had a cramped appearance, and spaces which were really small there looked much larger than they really were. In pointing this out, he did not suggest that we could in these days make our ceilings much less than 7 ft. high, but in the difference between this and the usual limit of 8 ft. there was much more to be gained than one would imagine. A very satisfactory vertical measurement for a cottage room was 8 ft. from floor to floor, which gave a ceiling a little over 7 ft. This was a more satisfactory method of measurement than from floor to ceiling, because in many cases where joists and beams were shown the ceiling itself could not always be exactly defined.

The modernist architect who was concerned entirely with practical function, and who, if he were creating a human being adapted for modern conditions, would probably add an extra eye in each side of the head to be used in crossing a crowded street, might perhaps view with impatience the claims of tradition as expressed in the classic orders and in old country building. And yet, while we might thank him for the omission of much useless ornament and architectural features, he (the lecturer) could not think the modernists' conception of the modern house was a sound one. What, after all, was a house for? It existed mainly for the purpose of affording us an adequate protection from weather. It must keep out the cold and it must keep out the heat. It should constitute, too, an indoor world which gave us a sense of really being indoors so that in the dismal weather which so often afflicted us we might find a refuge and retreat in a world of our own, where we forgot the outdoor world. For such purposes he maintained it was hard to beat the old cottage or the old house. The walls were thick and so kept out heat and cold, and this useful function was not neutralised by large gashes cut in the walls where only a sheet of glass stood between us and the weather, and which, on gloomy and rainy days made it impossible to escape from the outside world. Quite apart from any æsthetic qualities, an old cottage with its thick walls, thatched roof and windows of reasonable size was all that the functionalist could desire in the way of practical efficiency.

What could be said for the novelty-seeking modernists' creations? Let us pass over the fact that they were destructive of rural beauty and cast a blight on the countryside, and examine them on practical grounds only. We found usually thin walls, a flat roof, and large window areas, all especially adapted for letting in the heat in summer and the cold in winter. So quickly was the internal heat conducted away that we must resort to elaborate mechanical means of heating. And as to the interior, well! it was only when we found we had to live in such surroundings that we recognised one use for these large windows—they did afford us some escape from unpleasant indoor surroundings.

He thought one of the great achievements of the old builders was to give us a really inviting, homely and liveable interior. The term *liveable* was perhaps the best to use in this connection, for there was a kind of beauty which we might admire immensely but not wish to live with. There were few, he thought, who would wish to live in Westminster Abbey or St. Paul's, though both these buildings might be said to be beautiful. In the old house or cottage we should find something inviting and eminently liveable in all its appointments—the old hand-made furniture—the outcome of the experience of generations of craftsmen —the old oak panelling on the walls which made such a splendid background to people and things: the generous fireplaces. All these things created for us a world in which we could live in peace and enjoyment. By the side of all this, most of the modernists' work seemed to him just transitory rubbish, the up-to-date fashion of the passing day which to-day is, and to-morrow will be cast into the oven. There might be notable exceptions, of course, and he must confess his own experience of modernist interiors was mainly confined to public buildings.

On one occasion he partook of tea in a room adjoining a modern public hall. It was so grey and bare, and of such uncompromising and devastating severity, that he felt that he had strayed into Wormwood Scrubbs, and that, instead of tea, he should be regaled there with bread of affliction and water of affliction. In another up-to-date tea-room the whole scheme was so violently and insistently artistic that the people looked dreadfully shabby and out of place, whilst the whole establishment was lit by an uncanny imitation of daylight and, of course, superheated by mechanical means. And he thought how much more liveable and really comfortable was the old inn with its genial fireside, its old oak furniture and gleaming brass candlesticks. The modern decorator was apt to forget that his main function was to provide a good background to people, instead of a colour scheme which was aggressive and insistent, which demanded harmonious garments in its occupants.

We had now the opposite camps of the traditionalists and the modernists. In all these party divisions, both in art and politics, it was the mark of the reasonable man to hold aloof from all such limited and standardised professions of faith. He should be ready to accept any new thing which was sound, and equally determined to hold fast all old things which were good. His should be the policy of the open mind and the free hand. Every style was good if it was only well enough done. If we heard of a modern house in the Tudor style we might feel great misgivings, and even hardly repress a shudder: we approached it with all kinds of dismal forebodings; but it was just possible we should find in it such an exquisite selection of traditional forms, so entirely appropriate to their position and use, that they seemed to us entirely justified. And in addition to whatever intrinsic beauty such a house might possess, it would carry with it some of the atmosphere of those old times which, although they might not have been as good as they were popularly supposed to be, were at least good in this, that men then understood how to beautify the world with their buildings and how to provide us with an interior world which formed a very satisfactory setting for our lives. Certainly, many of us in a mechanical and soulless age welcomed in our homes the restful and unobtrusive harmonies of the old house. If we were to have modernism it should not be of the extreme kind, which was violently revolutionary and iconoclastic, and egotistically scornful of tradition. Our modernism should link itself with the past and develop from it, accepting old truths as well as creating new beauty, where that was possible.

It was a mad world, and seemed to get madder every day. We had drifted from all the old anchorages which helped us to ride the world's troubled waters in peace and security, and cut up the country with great roads for our feverish and restless peregrinations. Truly, George Meredith was prophetic when he wrote of the coming era.

> " From this unrest, lo early wrecked.
> A future staggers crazy
> Ophelia of the ages decked
> With woeful weed and daisy."

Of this new age, Mammon, renamed Economics, was God, the machine was his faithful henchman and man his willing slave. In obedience to economic law, with the help of the machine, we were flinging away the labour we delighted in, which, as Macbeth says, physics pain, and, having done so, we were pained and surprised at the rising ranks of the unemployed. Supplanted by uncontrolled machinery, the right hand of the craftsman was losing its cunning, and all the joy of happy human work was disappearing. We seemed to have fallen under a curse akin to that of Midas. The more we produced, the more desperate did our situation become.

It was in such a world as this that architects were invited to express in their work the spirit of the age. He confessed, for one, he felt under no obligation to do so. He would rather give expresion to the fact that there were still some at least amongst us who preferred to seek inspiration in nature and the old masters of the building art.

SOCIETIES AND INSTITUTIONS

SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS.

Mr. Ernest Berry Webber, A.R.I.B.A., lectured to the Society recently on "Planning." Mr. J. Lancashire, L.R.I.B.A., was in the chair.

The lecturer first dealt with the matters which influenced planning, among which he mentioned aspect, prospect, and contours as being three of the main factors which influenced the plan of a building in the first case. The varying by-laws of different localities also affected a plan substantially. The regulation which, in this country, prohibited the erection of sanitary blocks without a window opening to the external air made the planning of these blocks much more difficult than it was abroad, where they were allowed to be planned anywhere in the building provided that efficient artificial ventilation was provided. In the lecturer's opinion, this by-law would, before long, be altered in England, and then this country would come into line with America. Site value, the cost of the building, and the revenue which would reasonably be expected to be derived from it when erected and let off were important considerations and careful calculations of the building as a profitable investment must be made before a body of business men could be expected to find the money for its erection. It was most important to make use of all the area available on the site, and instances were given of competitors in competitions who had spoilt their chances of success by wasting valuable site space when making their designs. Other things to be considered were the method of construction; in a properly designed building, sections and elevations were largely influenced by construction, whether it was to be a steel-framed building or not. This affected largely the time of erection and the room which would be taken up by piers to the sacrifice of floor space. The position of the main services, conduits for lighting, ventilating and water supply had to be provided for and had its influence on the design. Last, but not least, was the time factor—delay over the scheduled time meant, in the case of big business premises, very heavy loss of rent, and this, particularly in the case of the colossal office buildings erected in America, was a very serious matter. It was also important in the case of many buildings that they should be capable of being added to later, and the plan and design as a whole should be designed bearing these future developments in mind. A little foresight made such extensions comparatively easy, but if they were not considered when the first block was designed they often became extremely difficult to plan afterwards.

The lecturer dealt with particular types of buildings, mentioning that the day of the large house was past and that small houses and flats were the vogue, with the luxury flat for the wealthy. Devonshire House was a good example of the latter, as the accommodation could be cut up to suit the requirements of individual tenants.

With regard to schools, the lecturer said the central assembly hall, with buildings all round, was abandoned, and had been superseded by the open courtyard, with buildings all round and an open verandah on the courtyard side. He did not see why, in the case of hospitals, the business of designing these should be in the hands of a few specialists, as he felt confident that the extra amount of specialistic knowledge necessary beyond ordinary knowledge of general planning could be easily acquired by a little study. The modern practice of having the beds parallel instead of at right angles to the walls of the wards was mentioned; the old practice meant that the occupant of the bed had the light from the opposite window always in his eyes. Ecclesiastical buildings were to a large extent governed by traditions in their design: the ritual and acoustics were two of the most important factors to be considered. He thought Charterhouse College and the Church of Christ Scientist in London were good examples. Slides of some cinemas and concert halls were shown; the fan-shaped auditorium allowing the largest number to obtain a good view of the screen was noted, as, for example, Mr. Robert Atkinson's plan of the Regent Theatre at Brighton. Luxury, where the making of arrangements for the proper projection of the picture, the latest lighting effects, good acoustics, and unobstructed view of the screen from every point of view might be said to be the most important points to be considered. In cinema design all these had to be provided at a commercial figure. He thought that modern cinemas were teaching the theatres the best plans.

The lecturer also dealt with commercial and industrial buildings, stating that the life of many of the buildings of this class could only be put at about 35 years, owing to the rapidly changing ideas as to what was required in them. It was mentioned that the feature of the fine central staircase had quite disappeared from the large stores, and that what was now required by the by-laws and fire regulations was a good enclosed stairway leading direct on to a thoroughfare, providing ready means of escape in case of fire. He considered with regard to stanchions that 20-22 ft. span was the most economical limit. Another class of building mentioned was the speculative building, in which the client demanded a building of a certain cost with a maximum adaptability.

The lecturer also dealt with public and civic buildings, showing slides of libraries, baths, assembly halls, municipal offices, town halls, police courts, art galleries, and museums.

A vote of thanks to the lecturer was afterwards proposed by Mr. H. B. Leighton and seconded by Mr. A. G. Cotton.

LEICESTER AND LEICESTERSHIRE SOCIETY OF ARCHITECTS.

The 58th annual general meeting of this Society was held on Thursday, April 30, 34 members being present. Mr. George Nott, F.R.I.B.A., was elected president for the ensuing year, and the following gentlemen were elected to serve on the Council:—Messrs. Walter Brand (ex-president), ex-officio member E. T. Allcock, Shirley Harrison, W. Keay, Waller K. Bedingfield, C. E. Wilford, and E. C. Mount. Mr. A. F. Bryan was re-elected hon. treasurer, and Mr. C. F. McL. Keay, hon. secretary.

YORK AND EAST YORKSHIRE ARCHITECTURAL SOCIETY.

The annual general meeting of this Society was held at the Royal Station Hotel, Hull, on April 30. The President, Mr. G. Dudley Harbron, F.R.I.B.A., occupied the chair. Among those present were Major J. M. Dosser, Mr. J. S. Syme (past presidents); and Mr. H. Andrew, Mr. Bridgen, Mr. C. W. Needham, Mr. F. J. Horth, Col. C. D. Allderidge, Mr. A. Hick, Mr. T. Snowden, Mr. A. N. Thorpe, Mr. K. Ward, Mr. W. P. Watson, Mr. Highmoor, Mr. Dakin, Mr. L. Ruddick, Mr. J. W. Pickering, and Mr. N. Northgrave.

The report of the Council and the treasurer's statement were received and adopted.

The President then presented the Measured Drawing Prize to Mr. L. Ruddick, of York, and complimented him upon the quality of his work. The design prize was awarded to Mr. J. W. Pickering, of Hull, for the best design for a bungalow, the President remarking that the competition had been popular and had evoked a large number of entries from the student members of the Society. The second prize for design was presented to Mr. N. Northgrave.

The President, in his address to the meeting, referred to the development scheme of the R.I.B.A., and said it was desirable that all those members of the Society who were not yet members of the Institute, but who were otherwise qualified for membership, should make application for admission to the Licentiate class. The Architects' Registration Bill, which had passed its third reading in the Commons on April 17 without a division, had had the promised support of the majority of the Members of Parliament in the area of the Society's activity. That was appreciated. Although the Bill was not all that might be wished by some, it was a step in the right direction. Upon the Registration Council the Society would be entitled with other allied societies to proportionate representation. The benefits of registration would in course of time, it was hoped, under the direction of the Education Board, be of considerable help to the community. The Institute had been attacked in the House of Commons by some few members, the Board of Architectural Education being the target, but the Board had developed a school system and a scholarship system which provided for adequate training and helped to obtain such training. The maintenance scholarships were solely to assist those deserving and needing help; they were administered without any reference to social position. The Hull Corporation had promised that in future schemes the employment of local architects would receive consideration. The Corporation desired to put Hull on the map—and yet some of their actions were such as invited unfavourable comment.

The result of the annual election of officers and council for 1931-1932 was announced as follows:—

President, Mr. K. Ward, L.R.I.B.A.; Vice-Presidents, Messrs. F. J. Horth, F.R.I.B.A., H. Andrew, F.R.I.B.A., C. W. Needham, A.R.I.B.A.; hon. secretary, Mr. R. Jackson, A.R.I.B.A.; hon. treasurer, Mr. E. A. Pollard, L.R.I.B.A.; Council, Messrs. W. E. Biscomb, C. H. E Bridgen, F.R.I.B.A., G. H. Fawcett, A.R.I.B.A., A. Hick, L.R.I.B.A., C. Leckenby, A.R.I.B.A., C. Oliver, L.R.I.B.A., T. Snowden, F.R.I.B.A., A. N. Thorpe, H. F. Wharf, A.R.I.B.A.

Mr. Dudley Harbron was nominated to serve as the Society's representative on the Council of the R.I.B.A.

The retiring President congratulated Mr. K. Ward on his election. Mr. Kenneth Ward then took the chair.

It was announced that Col. C. D. Allderidge, A.R.I.B.A., and Mr. K. Ward offered prizes for design and measured drawings to be competer for by student members, and the meeting accepted their offers with acclamation.

On the suggestion of Mr Needham, the Society donated £10 towards the purchase fund of the Evelyn Collection for the City of York.

R.I.B.A.

The R.I.B.A. Final Examination.

The following are the dates on which the forthcoming R.I.B.A. Final Examination will be held:—

July 8, 9, 10, 11, 13, 14 and 16 (last day for receiving applications, June 8).

Examination for District Surveyor.

The R.I.B.A. statutory examination for the office of District Surveyor under the London Building Acts, and the examination for the office of Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on October 14, 15 and 16. The closing date for receiving applications for admission to the examinations, accompanied by the fee of £3 3s., is September 23. Full particulars of the examinations and application forms can be obtained from the Secretary, R.I.B.A.

"THE BUILDER" DEBATE

XXXIX.—FAIR PLAY IN TENDERING.

SIR,—There are occasions when if any good purpose is to be served the buttons must come off the foils. A little blood-letting may serve to reduce the inflammation. I submit that if "Positive" means anything, he means that in the matter of tendering there is so much unfairness that it is necessary to invoke Parliament to strengthen the law in relation to contracts. This, of course, might be conceded without the admission of a hit, but that is not enough and we must get down to stark realities. To do so involves a narrowing of the issue in order to bring it into direct relationship with tendering as conducted between the architects and builders who read these columns.

Tendering for private persons or concerns who do not employ architects, that is to say, tendering offered by the builder to his direct customer, need not be considered. It is a private and semi-domestic matter in which each must exercise his own judgment. In tendering for work involving the expenditure of public money, the builder, where the matter is sufficiently large to necessitate a loan, is usually guarded by the fact that the Minister authorising the loan withholds his consent until satisfied that the lowest tender has not been passed over on insufficient grounds.

This brings us to tenders obtained by architects on behalf of their clients, and in order to show cause for so drastic a proposal as that made by "Positive," he must satisfy us that, wittingly or unwittingly, abuses have crept in, and so to speak, have so poisoned the system that violently purgative remedies are required. I don't believe it.

Before going further I must concede that where the architect invites a number of builders to submit tenders he is morally bound to advise his client to accept the lowest tender if he accept any. I hold that in such circumstances the architect, before he asks the builders to tender, should satisfy himself as to the ability and general standing of them all. If he does this and advises his client to accept the lowest tender sent in and his client prove obdurate, I consider he is further required to advise that the builder passed over shall be compensated for at least his loss of time; and further, that if the passing over is done under such circumstances that the builder suffers actual damage other than loss of expected profit, he should receive some compensation. But this is as far as I can go with "Positive."

In the case of tenders sought by public advertisement, other considerations arise. Here, if the architect were sure of his ability to extract from an unknown builder work of exactly the quality desired, it might be held that he should accept the lowest tender without more ado. But how many architects are so sure of themselves? And where they are sure, does not the event too often prove that their self-confidence has been too cocksure? It is exactly here that the whole crux of the matter lies. A building may be clearly planned, minutely specified, have in charge of it a competent architect, and yet, if an unwise choice of builder be made, fall far short of being a good building. This being so, is the architect to be debarred from exercising a reasonable discretion and from telling his client that though X has submitted the lower price, Z is likely to give better value for money? It is so well understood that the lowest tender will not necessarily be accepted that where tenders are sought by public advertisement the builders taking part must do so at their own risk.

It is, however, necessary to come to close grips before we can finally dispose of this matter, and I suggest that in as many as ninety-nine cases out of every hundred, if a builder has been in business for a few years, and finds himself in the position of having a marked percentage of his tenders rejected though he offer the lowest bid, there is necessarily something wrong with him, and with his method of doing business. I go further and say that it is one of the principal duties of the architect to safeguard his client against the evils that might befall him were he left unassisted in his choice of an otherwise unknown builder from a group tendering in reply to a public advertisement; and that this being so he would not be acting in the best interests of his client did he advise the acceptance of a tender from a builder in whom he had no confidence. I am assuming the architect to be a qualified man.

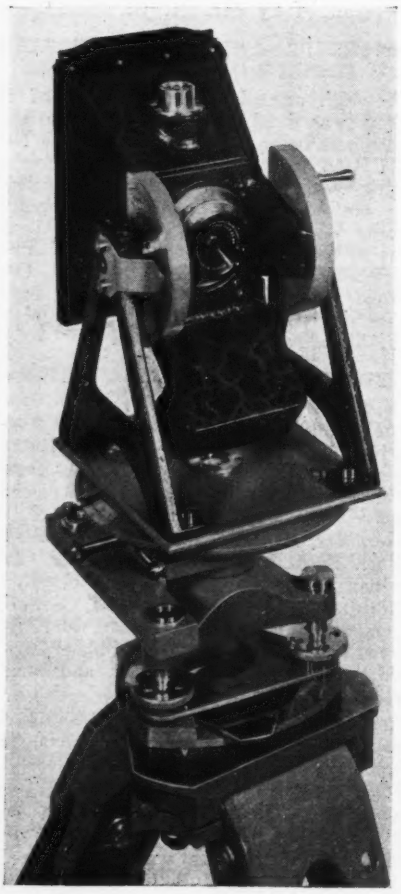
I am, however, willing to concede that owing to the overcrowding of the profession of architecture there is a good deal of sharp practice going on that needs to be checked. Needless to say, it is not indulged in by architects of standing and repute. But just in the same way that architects are in danger of meeting trouble at the hands of unknown builders, so the builder runs a risk at the hands of unknown and unqualified architects, and the builder is more vulnerable. The remedy does not lie in invoking the assistance of outsiders, nor in the passing of additional laws. The reform, where needed, must come from within, and originate in the co-operative efforts of men of good will.

For immediate purposes the remedy is best found by discreet inquiry on either side. The architect here has advantages denied the builder because it is so very simple a matter to find out whether the builder is straightforward and capable.

The builder has rather more difficulty because he cannot ask the architect for references; but a discreet inquiry addressed to the Federation secretary will bring a guarded reply not difficult to understand. These inquiries should, however, precede (not follow) the tender, so that the unpleasant necessity for rejection or withdrawal should not arise.

The whole question is, however, one of much cry and little wool. Architects and builders of standing manage to avoid all those difficulties that cause so much soreness as to lead to charges of unfair play.

NEGATIVE.



The Daylight Factor Theodolite

DAYLIGHT FACTOR THEODOLITE

FOR some time the need has been felt of some instrument that would enable daylight factors at various points of an interior to be determined photographically, in connection with easement of light cases. Various instruments for ascertaining daylight factors in various ways have been devised, and amongst the best known of them is the Thorner daylight factor meter, an improvement of which was recently suggested by Mr. A. K. Taylor, of the National Physical Laboratory. Quite recently, an entirely different instrument, in the form of an integrator, was devised at the National Physical Laboratory for obtaining the same results in an entirely different way. None of these instruments, however, solved the problem in a way likely to be of much assistance in easement of light disputes. The difficulties in presenting cases of this kind in court, with a minimum of expense and the utmost expedition, have now, we understand, been overcome by means of a daylight factor theodolite, which has been devised by Mr. John Swarbrick, F.R.I.B.A., of 39, Maddox-street, London, W.1.

There are many cases in which the form of the window openings and the shape of the obstructing buildings has been so simple that modern easement of light projections could be made with rapidity and with a minimum amount of expense. There are, however, other cases in which the light of not one but of several small patches of sky, coming through quite a number of windows, has been received at a series of points in the rooms under consideration. In some such cases the obstructing buildings have not been regular in form, but have presented complicated sky lines, in a variety of receding planes. Moreover, it often happens that the obstructing buildings are neither parallel to nor at right-angles with the walls of the rooms under consideration, but lie at various irregular angles. Moreover, the levels at which the obstructing buildings stand often vary considerably. In order to prepare really accurate projections, in cases of this kind, it is sometimes necessary to have an extensive survey of surrounding property made, and to obtain elevations and roof plans of an appreciable number of the surrounding buildings. The time and expense that would be involved in doing this work accurately has, in some cases, proved prohibitive, and various methods of approximation have had to be adopted.

The new instrument for preventing delay and expense is known as a daylight factor theodolite, and is illustrated on this page. The instrument, which resembles in general appearance a theodolite, and stands upon a short tripod, possesses the usual means for adjusting the level and reading angles on the horizontal and vertical planes. It is also fitted with a magnetic compass. At the summit of the instrument, a camera has been placed, in bearings that enable it to rotate about a fixed point in both the horizontal and vertical planes. The camera is so arranged that, once the tripod has been fixed in position, a whole series of photographs may be taken with the camera of any number of windows, so as to represent in each photograph exactly the effect as seen from one particular point. This point remains the same in whatever position the camera is moved, in either the horizontal or vertical planes. By means of angular grilles, it is possible to measure the cill ratio of the amount of direct light from the sky received in respect of each of the windows photographed from any given point, and by adding these amounts together it is possible to ascertain the exact daylight factor at any particular point, irrespective of the complicated nature of the obstructions. Without any preliminary survey, and without any elevations and measured drawings of obstructing buildings, the whole of the necessary data for definitely proving a case can now be obtained with this instrument, in the case of existing buildings.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

QUESTIONS.

Contract Question.

SIR,—Can you tell me whether a contract stands if a tender has been offered and accepted, but the client has subsequently refused to sign the formal contract? In the case in point, an architect was instructed to accept the tender, but subsequently matters arose which made the clients change their minds.

QUERIST.

Moving a Tree.

SIR,—I should be glad to know whether it is possible to take up and move a mature holly tree, standing about 10 or 12 ft. high, at this time of year, with any hope of its taking root in its new home.

GARDENER.

Foot Cube Cost of Buildings.

SIR,—Can you inform me what are the present average cube foot costs, exclusive of land but inclusive of drainage, necessary standard fittings, etc., for buildings of the following classes:—Workmen's parlour cottages; workmen's non-parlour cottages; Council flats (two stories); small middle-class houses; bungalows; factories; town halls, etc.; office buildings; country houses?

L. MURRAY.

[The following rates per foot cube apply generally to the Home Counties, though there are marked differences in some districts of the same areas:—Workmen's parlour and non-parlour cottages, 10½d. to 11d.; small middle-class houses, 1s. to 1s. 2d.; bungalows, 1s. 1d. to 1s 2d.; country houses, 1s. 3d. to 2s., according to style.

The following apply generally to London district:—Council flats, 10½d. to 1s.; town halls, 1s. 6d. to 2s. 6d.; office buildings, 2s.; factories (widely various).—ED.]

ANSWERS.

Efflorescence on Brickwork.

[REPLY TO "PERPLEXED," MAY 1.]

SIR,—This generally occurs in brickwork in cement mortar, or heavily gauged in cement. The origin is not certain, but is probably salts in the clay of the bricks, the efflorescence from which is absorbed in the bricks and joints when these are all of a porous nature, but which is driven out of the face of each individual brick where the joints are non-porous. The efflorescence works its way out in about one or two years, and generally leaves the face of the bricks well cleaned in the process. While it lasts it is very unsightly, but the condition is not permanent. It also varies with changes of climatic conditions.

PRACTICE.

Painting Ceiling.

[REPLY TO "QUERIST," APRIL 24.]

SIR,—Yes, it is quite possible to apply glossy paint to the surface of an old papered ceiling, if the paper has been well laid and is free from all wrinkles or air-bubbles.

PRACTICE.

Treatment of Wood Spouting.

[REPLY TO "CHOPSTICK," APRIL 24.]

SIR,—Wood spouting is in any case an unwise affectation. However, if you are determined upon it, the wood should be treated both sides with a preservative stain, and the inside well tarred. The stain will not affect the porosity of the wood, and damp can thus work out that way.

1931.

Local Authorities.

[REPLY TO "QUERIST," MAY 1.]

SIR,—There is no rule laid down on the point "Querist" raises. Both the urban and the rural authority will no doubt have by-laws, and in one area they may be more exacting than in the other, but neither will provide for the case put forward. Unless, therefore, arrangements can be made with the authorities concerned on the lines suggested by "Querist," he must submit plans, etc., to both authorities for their approval.

LEX.

Defective Doors.

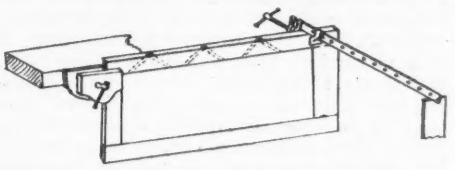
[REPLIES TO "WINDOOR," MAY 1.]

SIR,—The construction of a door without an intermediate rail is weak. It is extremely unlikely that a three-ply panel would go into winding. A stronger door of this type would be the flush type, in which three-ply is securely fixed on each face over stiles and rails.

METHOD.

SIR,—The design has possibly some influence on the behaviour of the door. The insertion of a wide lock rail must tend to prevent twisting, as it reduces the size of the panel and increases the strength of the frame; hence its resistance to any twisting tendencies which arise in the panels.

However, to prevent any further trouble I suggest that a door be removed, stood on edge at the side of the bench with the end of one stile gripped in a vice. If the other end of the stile is gripped with a 4-ft. sash cramp, it is possible, by using the cramp as a lever, to remove the twist from this stile and by propping the end of the cramp off the bench or floor to keep the stile in this



position, *i.e.*, with the twist removed or slightly reversed to allow for "springing back." If the cramp or vice were removed the twist would reappear, and to prevent this a series of ½-in. holes about 18 in apart are bored into the stiles from the edge at an angle of about 45 degrees, terminating at the panel, as shown. Into each hole is driven a dowel smeared with glue. This dowel is then cut off flush with the edge of the door. By inserting the dowels in pairs it is possible to insert six with visible evidence of three only on the edge of the door. If the doors are stained and varnished, and it is thought that dowels will appear unsightly, it may be sufficient if the hanging stile only is treated; but in bad cases both stiles will have to be treated. It is possible to remove 1½ in. of twist without opening any joints.

F. WALKER.

ST. JOHN'S WOOD THEATRE FOR AMATEURS

Application for Music Licence.

THE application by Lady Iris Mary Athenais de Vere Capell for a music licence in respect to a proposed theatre to be erected in Grove End-road, St. John's Wood, N.W., from plans prepared by Mr Geoffrey Norman, F.R.I.B.A. (Messrs. Swan, Norman and Clay), was refused, at the adjourned hearing, on April 29, by the Entertainments (Licensing) Committee of the London County Council.

The application was opposed by the Marylebone Cricket Club, and 47 owners and occupiers of property in the immediate vicinity of Grove End-road, including the trustees of Eyre Estates, the governing body of the Abbey Road Baptist Church, the Public Utility Housing Society, the London Housing Society, Ltd., and Mrs. Hannah Amy Marks, the adjoining owner and occupier of the house next the proposed site. At the hearing on March 25, Sir Reginald Mitchell Banks, K.C., for Lady Iris Capell, said she was very interested in amateur dramatic societies, and had noticed that the premises available for such performances were few and far between. She had formed an opinion that it would pay to erect a small theatre, specially designed for amateur productions, and to seat from 260 to 300 persons, and to let the theatre at so much a night to amateur societies.

Mr. W. T. Creswell, who appeared for Mrs. Marks, said that she had spent £10,000 on making her house adjoining suitable for herself—"it was a little retreat—an oasis in London." "This is the thin edge of the wedge," commented Mr. Creswell, "to make the district another Shaftesbury-avenue or Leicester-square." No one wanted it, and the proposal would seriously affect Mrs. Marks's enjoyment of her property. Mr. H. du Parcq, K.C., who appeared for the M.C.C. and certain other opposers, said there was not a scrap of evidence that anyone in the district of St. John's Wood wanted a theatre at all. No one had been called by the applicants to show that it was required.

At the adjourned hearing Sir Henry Curtis Bennett, K.C. (who appeared for the M.C.C.), called evidence in opposition that the application would have the effect that the proposed theatre would materially decrease the value of the property in the area, if and when erected.

After Sir Reginald Mitchell Banks had made a final submission for Lady Iris Capell's application, the committee retired, and, on their return, after some 20 minutes' absence, the chairman (Mr. Clyde T. Wilson) announced as stated, that they had decided to refuse the application.

EARTHQUAKE PRECAUTIONS

"IN an overwhelming majority of cases where buildings failed, the wreckage revealed serious faults in design or construction, and frequently in both, which it should not have required an earthquake to bring to light," writes a member of the Incorporated Association of Architects and Surveyors, practising in New Zealand, apropos the recent earthquake. The Building Regulations Committee is preparing a comprehensive building code adapted to the needs of the whole Dominion, and consolidating the rules of good design and construction in steel and concrete, brick, stone and wood. "The fundamental principle underlying nearly all earthquake-resisting construction," continues this correspondent, "is that every minor part shall be thoroughly bonded to surrounding parts, and the whole fabric bound together to form, as nearly as possible, one unit or monolith. Thus in steel frame construction beams and columns should be thoroughly interconnected to provide 'continuity' of action between beams and columns, and between columns and foundations. In reinforced concrete, similarly 'continuity' of action between adjacent members should be carefully provided for. In unit masonry construction—whether brick or stone—a good mortar and metallic tying of the components is required. In foundations, where isolated piers occur, these should be interconnected in two directions at right angles to one another. In wooden buildings the superstructure should be well fastened to the foundations and the walls and roof well braced.

"Turning now to the dangers from existing buildings; in the case of buildings with shop windows on the ground floor, the front walls should be tied well back into the building at each floor level and at the roof. Merely bolting to wooden floor joists parallel to the front wall is quite inadequate. Certain terminals and finials can doubtless be removed with advantage and parapets reduced in height. Any cornice which depends in any way on the weight of the parapet for its stability should be cut back, and masonry balconies and heavy projections removed unless well anchored through the walls. Few of the older brick buildings have the wall plates at upper floors and roof adequately anchored to the walls, and in all such cases rods should be inserted across the building and bolted through the walls. By such means the danger of walls swinging out and permitting the floor or roof to drop will be averted."

THE BUILDING TRADE

ESSAYS ON BUILDING PRACTICE.—XIX

By J. R. TAYLOR.

ESTIMATING AND COSTING.

ESTIMATING for building work is by no means an exact science in the same sense as, say, mathematics, though not a few architects and some builders appear to be of a contrary opinion, and many text books have been written on the assumption that it is a subject which can be taught. Were it an exact science the following question put to an aspirant to a post of assistant estimator might have been answered differently. The question was put in this form:—"If a bricklayer and his labourer completed the building of a certain wall to the satisfaction of the architect in fifty working hours, in what length of time would twenty bricklayers with twenty labourers build an exactly similar wall to the satisfaction of another architect? State your answer and comment." The youth, who had mastered the first two books of Euclid and had therefore been taught to look all round a question, gave the following answer:—"It would depend somewhat on the height of the wall, and perhaps on what manner of man was the architect." This answer got him the job.

But if estimating is not a science, what is it? Perhaps the easiest way to answer this is by quoting an example from an entirely different trade. In some parts of the country farmers drive their beasts to market and butchers attend and bid for them. Though there is almost invariably a weighing machine available at a small charge it is seldom used, the butchers preferring to bid on their estimates rather than on an exact calculation based on ascertained weight. There are several technical reasons for this preference that need not be stated here, but it makes for happiness because both the farmer and his customer each sometimes goes away satisfied at having what he believes to be the best of the bargain. Here estimating may be classed as a sport or an art. This is all well enough in its way; the individual transactions are comparatively small and may be expected to average so as to give an even result. The butcher does at least see the outside of the beast, and though the inside may prove disappointing it will not present such wide variations as a building. But I do not know what the butcher would say (and if I did I do not think I should repeat it here) if asked to bid good prices for beasts from an indistinct photograph having a resemblance to a smudgy blue print. It will not do, however, to ask my readers to journey from Catherine-street to Smithfield for further illustrations of the art of estimating, no matter how close the analogy, so we will return strictly to the subject.

Estimating for Jobbing Works.

Most writers on estimating advise the young estimator to base his estimates on recorded costs, but, unfortunately, the small business does not lend itself very well to the recording of costs in such a way as to be serviceable to the estimator, and even were an attempt made so to keep them, they would probably prove to be very misleading. A slate replaced on one roof may sometimes cost but a couple of shillings, while on another there might be a loss on an estimate of ten shillings. But, for all that, estimating for jobbing repairs is first-rate practice for the beginner if he can get his pricing checked by an older hand. The great benefit to be derived from this class of pricing is that it compels the estimator to think about the materials separately. Instead of thinking of, say, a rod of brickwork having a more or less standard price attached to it, he has to break it up into all its component parts, find the value of the materials and add for the labour. When doing this the beginner should list the materials and later compare the list with the record of those used. At first he is likely to find many small items on the materials-used list that he had not taken up in his estimate, and this will train him to come up to the architect's expectation that he will be able to see 6 ft. below surface without opening out. The architect himself cannot always do so, and therefore states that the contractor is to "perform all things that are usual and necessary," whether measured or not.

For this class of works, though costs cannot usually be kept in such a way that the details will be of much use in subsequent estimating, they should still be kept with the utmost accuracy. Not only will they prove how much is lost on the job (most builders live on their losses), but they train the memory. So much is this the case that I consider that a year or two at prime cost keeping forms one of the most essential parts of an estimator's general training. In the course of that time he will memorise some hundreds and perhaps thousands of material prices. Later, when engaged solely as an estimator, he will find that he is expected to work at a speed that precludes him from referring to price lists, and, consequently, he must have the necessary knowledge at his fingers' ends, so to speak.

But though the detail prices such, say, as the cost of labour per yard super of patching plaster on one job may not prove to be a safe guide for similar work on another job the total job cost may prove very useful. It is difficult exactly to convey my meaning without quoting instances, so we will take another one. Assume a spot item dealing with breaking out a doorway in an old wall. It is quite easy to measure it in detail, giving cutting out, building jambs, fixing lintel, skirtings cut and refixed, floor patch, plaster patching, and so on, until, when all has been carefully taken and described, there will be perhaps two pages of quantities. So given, the work will be presented in the best form and an experienced estimator will price it very accurately. But the less experienced would find it rather difficult, and the recorded cost of a similar job would provide him with a valuable check. Later on he will, when called upon to work at top speed, be able to bracket these two pages and price them temporarily as a lump sum item, but should his estimate prove successful, the quantity surveyor will expect him to break up the price into its component parts. To sum up this part of my subject: while the estimator is young and the work he is handling is comparatively small he should, even though not in charge of the prime cost records, be constantly seeking to know what the actual costs are, and the underlying causes for the discrepancies he will surely find.

Larger Works.

With all but builders in a big way of business and having a large turnover, the expense of keeping carefully analysed costs is found to be prohibitive. Having an estimator, a general clerk and a junior on his staff, the total office expenses, including salaries, will represent probably five per cent. on a builder's turnover, and he will have many other heavy overhead charges to meet as well. Most builders who keep an office staff of this size do a fair amount of jobbing work, even though they look to general contracting for the greater part of their total turnover. In such circumstances competition does not usually warrant the keeping of a larger staff and adding to what the accountants are pleased to call the non-productive costs, despite the fact that these so-called non-producers are generally the profit-spinners. But that is by the way. With this staff a builder is well served if his lump sum job costs are kept up to date. Despite the handicaps, it frequently happens that the lists of tenders shows what on the face of them appears to be very good estimating. Taking away one or two tenders at the top, where it is obvious that the work is not keenly sought, and one from the bottom of the list, where it is almost equally obvious that a bad mistake has been made, it is not infrequently found that the total variation in the other tenders does not exceed five per cent. When this happens it generally indicates first-class quantity surveying. But a complete analysis of all the pricing would often bring to light a very important fact that has a bearing on the question of better and more detailed costing. If a surveyor had all the priced copies from the close group and filled in two fresh copies, using all the highest prices attached to individual items for one copy and all the lowest for the other, he would get two new totals possibly differing by more than twenty per cent. To some extent this would be accounted for by the fact that some builders are better equipped for handling certain branches than others, but the margin is too wide to be entirely met by this explanation. What really happens is that in regard to some of the items errors in pricing, resulting in loss, may remain undetected for years for want of better detailed costing or proper analysis before being customarily put down by the estimator as standard. I have known estimators who have for years remained under the impression that 4:2:1 and six-to-one concrete denoted exactly the same thing and could be carried out at the same cost. There is grave danger in this, because a contract may be taken on where there is an unusual amount of some class of work that the estimator has habitually priced at too low a rate. If this happens his estimate will fail to average, and though he may be alarmed by his position in the list of tenders his check may lull him into false security.

Though the estimator may not enjoy the advantages of a carefully analysed system of cost-keeping, he may do much to help himself to the necessary information. One of the most difficult bills to price really accurately is the joiner's bill. But it is simpler than at first sight it may appear to be to find the value of the material separately, and, in any event, the prime cost clerk will have had sawing lists. These lists will probably have been reduced to feet super as inch, and, if totalled, provide very useful data. Compared with the surveyor's net measurements they show the percentage of average waste, or, more properly, concealed timber. The machine hours are probably separately entered, even when the system of costing is unambitious, and there is not, as a rule, much difficulty in separating the bench or manufacturing hours from the job or fixing hours. The estimator should always be on the lookout for this sort of information. It is only by constantly checking his pricing in the light of ascertained facts that he will at last arrive at something approaching really detailed accuracy.

I do not propose to deal with costing for very large works; it has already been pointed out in a recent leading article in *The Builder* how well this is now usually organised by the big firms.

But when the estimator has done everything possible to qualify himself and make his estimates as accurate as possible, he cannot forecast the amount of profit the work will yield. He is always trying to do a sum in which some of the figures are missing and others blurred. Not only

does the output vary as between one man and another, but the same man will turn out more work on one day than on another. Weather conditions may completely wipe out the expected profits, and if other unforeseen contingencies arise there may be net loss. The estimator should do everything possible to minimise the risks, and is best helped by careful and accurate quantities taken by qualified surveyors. A bill of quantities is not an estimate until it is priced, nor is it intended to be; but if not properly prepared it may result in some very bad estimating. Estimating without properly prepared quantities is gambling in a dangerous form.

FIELD WORK OF ESTATE DEVELOPMENT

By CECIL A. HART, B.Sc.(Eng.)Lond.,

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THE ideals of estate development have been much discussed during the last few years, but less has been said of the methods of arriving at a lay-out scheme. It occurred to the writer that a few notes on the actual preliminary survey work of an estate site would be helpful to the younger members of the profession, and maybe to some of their elders. No two estates present quite the same problems, as they may vary from an open one of a few acres to another which is thickly wooded and covering hundreds of acres. But the general principles remain much the same.

The first essential in any scheme is an accurate plan of the existing features, so that the proposed works may be plotted thereon. As a basis, it is generally possible to use the 1-2,500 Ordnance map, which should first be checked and brought right up to date. The occasional spot levels shown on these maps are not nearly sufficient for the draft plan, and a number of spot levels must be taken over the site for the production of contours at vertical intervals of about 5 ft. If this is done, full use may be made of any special natural features that may exist. In one case on a very exclusive 400-acre estate, the proposed lay-out showed a road quite straight for about 600 ft. Upon inspection, this part of the site was found to be of sand dune formation. By varying the line a little, it was possible to wind the road up a shallow valley, with the footpaths raised on either side, giving a fine terraced effect. Due consideration of contours would have shown up this possibility.

Trees should not be destroyed indescriminately, and a lay-out, prepared without knowledge of the positions of the more valuable trees, may lead to unnecessary destruction. The Ordnance Survey plan indicates the presence of trees, but gives actual positions only in the case of isolated trees. A careful survey of all sizeable trees should be made and plotted, with names and sizes. Some knowledge of trees is useful, because, naturally, some kinds are more valuable from a landscape point of view than are others. On one estate, which was being developed after years of neglect, the young surveyor carrying out the preliminary survey was held up by what he thought was a sycamore. After he had had the offending tree cut down, it was discovered that it had been a fine tulip tree, the leaves having a slight resemblance. Thus, for the best results with a minimum of labour, the plan on which the works are planned must give existing features, spot levels with contours and tree positions.

The method of attacking the field work depends on (1) the size of the estate; (2) the type of country—whether steep slopes or thick woods, etc.; (3) whether the original surveyors will also do the final setting out and supervision. The type of estate considered here will be one covering some hundreds of acres, consisting of neglected parkland, partly covered with bracken and thick woods and undergrowth. The setting out methods necessary here may be applied to a smaller or clearer estate, with certain simplifications. It will also be assumed that preliminary survey work is to be done to save time in the final setting out and construction work.

The most obvious and probably the best method is to divide the area up into a series of squares of, say, 100 ft. side. These points if pegged are useful for fixing trees and spot levels and are almost essential in setting out the roads and sewers, and also plot boundaries for conveyance purposes, where the going is at all hard. For this, a base line as long as possible is taken somewhere in the centre of the estate and on level ground if available. This must be fixed on the Ordnance map very accurately, by triangulating with a theodolite from the chosen base to at least three definitely fixed points on the existing plan. A starting point is taken and pegs are sighted in every 100 ft. by theodolite, the actual points being marked by a nail. It is risky to use an ordinary link chain for this work unless it can be checked frequently, on account of stretch. A steel band is much safer. If the slope of ground is not allowed for in chaining, an appreciable error will probably appear in this class of work. Each peg should be concreted at the base to prevent movement. These pegs are conveniently named A, B, C, etc., and at each point the theodolite is set up and right angles set off from the base on each side. Pegs are sighted in at each 100 ft. along these lines and marked in some distinguishing manner, such as A 200 L (left), and D 400 R.

In connection with the theodolite work, there are two common sources of error, which can be avoided as follows:—(*a*) In setting off right angles, mark off to a point about 300 ft. away, and not at the first peg; (*b*) it is never safe to prolong a line by a simple transit after shifting the instrument. Unless the instrument is in perfect adjustment (which is unlikely), sight on the back station with each face in turn, transit and mark the two points usually obtained on a peg. The correct prolongation of the straight line is midway between the two points. Incidentally, it is not satisfactory to prolong a line by setting off 180 deg. on the Vernier. It is not possible to set the Vernier sufficiently accurate to prevent an appreciable error over a long line.

Clearing is usually necessary, and this part of the work is much easier if done during the winter or early spring, before leaves, bracken and brambles have time to grow. The trees which come in the line of sight and are too big to be removed have to be avoided by turning from the line on to one of the others and back again. The pegs should be painted and lettered in a distinctive colour. With the network of squares in position it is a comparatively simple matter to fix the positions of trees and spot levels.

Another means of saving an immense amount of time in the long run is the fixing of a comprehensive system of temporary bench marks right at the beginning. Ordnance bench marks are usually outside the estate, and a series of quick references inside enables one to check up levels speedily, so that an error is noticed almost at once. Even Ordnance bench marks are sometimes not quite as reliable as they might be, especially if they are on old brick walls or wooden gate-posts. The O.S. plan of a large estate in Surrey showed eleven O.B.M.s around it. Of these, six were found to be in existence. A reliable-looking bench mark on a bridge was taken as standard and the circuit levelled twice, once in each direction. Each O.B.M. was then given its correct value to .01 ft. in relation to the standard. Large wooden pegs were driven and set in concrete at about a dozen vantage points inside the estate. Levels were taken very carefully in different circuits, between the O.B.M.s and these pegs, each peg being included in at least two circuits. The level of each temporary bench mark was thus found to .01 ft. For this work the dumpy level used had been carefully adjusted before starting. If this is not done, the instrument is liable to give inaccurate results, unless special cautions are taken. The difficulty is due to the axis of the spirit-level on the top of the telescope and the line of sight not being parallel to one another. The presence of the error may be easily determined as follows:—Set out three points, A, B and C, 100 ft. apart in line, and also a point D, equidistant from A and B. Set up the instrument at D, level carefully and read the staff at A and B. The difference gives the *correct* difference of level between A and B. Now set up the level at C and read to A and B. If the same difference is obtained there is no error. A difference as much as .02 ft. means that the special precaution of equalising to a foot or two the distances of backsight and foresight readings is necessary to obtain an accurate result in levelling for temporary bench marks. These bench marks being fixed, spot levels are taken at the survey pegs and at other points where the ground level changes. Checks are made to bench marks as they are met with. It will be found that these temporary bench marks save time at every stage of the job in enabling a rapid check of spot levels, section levels, road formation pegs, sight rails, floor levels, etc.

The plan giving existing details, trees, spot levels and contours is now produced and the proposed lay-out of the estate designed. The next step in the field-work is the setting out on the ground to agree with the plan as nearly as possible. Assuming that we have a 1/2500 scale print, we must first check the scale of the print. Really true to scale prints are extremely rare, and in a length of two or three thousand feet a shrinkage or stretch of twenty feet on this scale is not uncommon. The network of squares is drawn on, with due allowance for scale variation, and the proposed road and plot boundaries, etc., are measured off from the squares. With open ground there is not much difficulty in setting out in accordance with plan, but, where the going is bad, variations in roads have sometimes to be made to avoid trees. Without a proper preliminary tree plan, setting out is a constant operation of trial and error to avoid large trees, which always seem in such a case to grow in the centre of the proposed carriage-way. After the preliminary clearing and setting out, the pegs are checked and replotted. A convenient method is to have the outline and squares enlarged to a scale of 1/1250, as this is suitable for contract drawings.

At this stage the design of roads and sewers may be taken in hand. After the longitudinal sections of roads have been taken and plotted, the road profile may be determined, usually following the ground line as much as possible, unless the ground slope is too steep. Simple parabolic vertical curves, with levels every 25 ft., greatly improve the appearance of roads, particularly at sharp gradient intersections and where the road surface is to be concrete.

The drainage scheme follows. The work of setting out and design is considerably less with the combined than with the separate system. The relative merits of the two systems are debatable and cannot be discussed here. Considering either the combined system or the soil sewer in the separate system, we must locate the points where we can connect up with the existing sewers, and then from the contoured lay-out plan prepare a provisional scheme. This is set out on the ground with any necessary modifications, and the longitudinal sections levelled and plotted. Consider carefully the minimum depth necessary to drain all the houses, pipe sizes and gradients are decided from one of the sets of tables or curves for the flow in sewers.

When the surface-water scheme is separate, it must be designed to take the water from the road gulleys and to drain those parts which tend to be marshy. Catch pits are possible in some permeable soils. Ditches should be avoided, as they have many disadvantages, properly jointed pipes with manholes being much more satisfactory. The scheme should fall to convenient outlets, such as ponds, streams, or existing drains.

It is a great boon to have the whole or the major portion of the job set out before the contractor comes on the site. His organisation is considerably easier, and the general relations of engineer and contractor much smoother.

NEW BUILDINGS IN LONDON

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at THE BUILDER *Office not later than Wednesday morning.*

Beckenham.—IMPROVEMENTS.—The U.D.C. are to erect an annexe to the public baths. Mr. H. Storr Best, Engineer and Surveyor to the Council, has prepared the plans.

Bermondsey. — FLATS.—The B.C. have approved the erection of 24 flats in Rotherhithe-street. The General Manager of Works' estimate for the work has been accepted.

Brixton-road.—BUILDING.—Messrs. W. A. Lewis and Partners, 11, Finsbury-square, E.C.2, are architects for a building to be erected at the rear of 448-450, Brixton-road.

Chelsea.—ADDITIONS.—Messrs. C. Brand & Son, Millbank House, 2, Wood-street, S.W.1, are to carry out, at £28,250, alterations to Lots-road pumping station for the L.C.C.

Chiswick.—FLATS.—For the erection of 191 houses and 93 flats at Clayponds-lane, Great West-road, Brentford, the Brentford and Chiswick U.D.C. has accepted the contract of The Building and Public Works Construction Co., Ltd., County Works, Swindon, at £115,500. Mr. Edward Willis, engineer and surveyor, Town Hall, Chiswick, has prepared the plans.

Clapham Common.—ADDITIONS.—For alterations and additions to the branch post office, H.M.O.W. have placed contract with Messrs. Lamerton & Norris, 79, Crystal Palace-road, S.E.22.

Coulsdon.—ESTATE.—The Surveyor to the Coulsdon and Purley U.D.C. has submitted plans to the Council for 16 flats and 84 houses on the Woodlands Housing Scheme, which have been approved. The cost is estimated at £48,612.

Dalston.—FACTORY.—Work has commenced on the factory for the Davis Chair and Timber Co., 20, Regent-row, Dalston. The architects are Messrs. Higgins and Thomson, of Finsbury-square. The builder is Mr. Charles R. Price, of Bishopsgate, E.C.

Deptford. — REBUILDING. — Mr. W. G. Ingram, of 4, Verulam-buildings, Gray's Inn, W.C.1, is the architect for the rebuilding of the "Fox and Hounds" public-house, 58-60, Besson-street. No contract has yet been let.

Dulwich. — ADAPTATION. — The L.C.C. has allotted £10,345 for the adaptation of "C" block of Constance-road Institution. The plans for the work have been approved.

Hammersmith.—BUILDING.—For the erection of a building upon the site of 26-28, Paddenswick-road, Hammersmith, an application has been submitted to the L.C.C. by Messrs. Lewis Solomon and Son, architects, 21, Hart-street, W.C.1.

Hendon. — ADDITIONS. — The estimate of Messrs. G. Godson & Sons, Ltd., of Kilburn, N.W., has been recommended for acceptance by the Middlesex C.C. for the erection of additions and a new gymnasium at the County School. The County Architect is Mr. W. T. Curtis, F.R.I.B.A., 10, Great George-street, S.W.1. The tender price is £11,670.

Islington.—ALTERATIONS.—Messrs. Higgs & Hill, Ltd., Crown Works, South Lambeth-road, S.W.8, are the builders for alterations to the branch post office for H.M.O.W.

Kensington.—PETROL STATION.—A petrol filling station is proposed to be erected at the corner of Holland-road and St. Mary Abbots-terrace, W.8. The architects are Messrs. F. Taperell and Haase, 5, Stratford-place, W.1, and the builders are Messrs. Perry and Perry, 20, Woodstock-street, W.1. The demolition work has been carried out by Messrs. H. Sabey and Co., of Paddington.

Kingston-on-Thames. — SHOP. — Messrs. Woolworth, Ltd., propose a new shop in Thames-street and Market-place. Mr. W. Priddle, 311, Oxford-street, W.1, is the company's architect.

Lambeth.—WARD.—The Lambeth B.C. proposes the construction of an additional ward at the Maternity Home, Knight's-hill.

Lambeth.—THEATRE.—Mr. Andrew Mather, Leicester-square-chambers, W.1, is architect for the rebuilding of the Empress Theatre, Brighton-terrace, and Bernay's-grove, plans for which have been passed by the Lambeth B.C.

Lambeth.—A tender of £43,362, by Messrs. Gee, Walker and Slater, Ltd., 32, St. James'-street, S.W.1, has been accepted for the erection of 96 dwellings in four blocks on the Cottington-street site for the Lambeth B.C. The plans are by Mr. O. Cattlin, Borough Engineer, and Mr. E. C. Harris is Quantity Surveyor. Demolition is by Messrs. Kenton's, 36, King's-avenue, S.W.4.

Love-lane.—REBUILDING.—The rebuilding of the premises of Messrs. W. G. White & Co., at 7, Love-lane, has commenced. The architects are Messrs. Campbell Jones, Sons & Smithers, 9, Dowgate Hill, Cannon-street, E.C., and the builder is Mr. Charles R. Price, of Bishopsgate.

Oxford-street.—REBUILDING.—The premises at the corner of Oxford-street and New Bond-street, W.1, have been demolished. New premises are to be built on the site by Messrs. E. A. Roome and Co., Ltd., 7, Urswick-road, E.9, to the plans prepared by Mr. J. M. Sheppard, F.R.I.B.A., architect, 38, Bedford-place, W.C.1.

Oxford-street. — REBUILDING. — Messrs. Sir James Carmichael, Ltd., 331, Trinity-road, Wandsworth, are the builders for the rebuilding of 150-4, Oxford-street, W.1. The demolition contractors are Messrs. Willment Bros., Baltic Wharf, Waterloo Bridge, S.E.1. The architects are Messrs. Elcock and Sutcliffe, 60, Strand, W.C.2.

Richmond.—FIRE STATION.—The T.C. are to have a new fire station in Kew-road, together with a block of four flats.

Shooters Hill. — ADDITIONS. — The L.C.C. has accepted the tender of Messrs. A. Black & Sons, Newport Works, 96, Perry Vale, Forest Hill, S.E.23, for additional accommodation at Brook ambulance station.

Southgate.—SCHOOL.—The Middlesex C.C. has recommended Messrs. H. Knight & Son, of Tottenham, at £31,490, for the erection of the new council school in Chase-road. Mr. W. T. Curtis, F.R.I.B.A., 10, Great George-street, S.W.1, is the County Architect.

St. Pancras.—BUILDING.—For the erection of a building at 44-50, Osnaburgh-street, St. Pancras, Messrs. Purchase and Welch have made an application to the L.C.C.

Stockwell.—PREMISES.—Messrs. C. Hammerton and Co., Ltd., propose additional buildings at their premises at Stockwell Brewery, Southesk-street.

Strand.—REBUILDING.—The Civil Service Supply Association's premises at the corner of the Strand and Bedford-street, W.C.2, have been demolished by Messrs. B. Goodman, Ltd., to make way for new premises. The architects are Messrs. Herbert O. Ellis & Clarke, 3, Old Queen-street, S.W.1, and the builders are Messrs. Ford & Walton, Ltd., 254, High-road, Kilburn, N.W.6.

Surbiton.—FACTORY.—The Weston Electrical Instrument Co. are having a laboratory erected on the Kingston by-pass road. Messrs. Henry Butcher and Co., of 63 and 64, Chancery-lane, W.C 2, are the architects.

Tottenham.—LIBRARY.—Tenders are being invited by the U.D.C. for the erection of a branch library in Vincent-road, West Green. The plans are by Capt. H. F. Wilkinson, engineer.

Wandsworth.—ESTATE.—Mr. R. M. Pigott, F.R.I.B.A., 44, Bedford-row, W.C.1, has submitted to the B.C. a lay-out plan providing for the erection of 486 dwellings on the Magdalen Park estate. The same architect has submitted a revised lay-out for three blocks of flats on land in Garratt-lane, adjoining Rogers-road.

West Ham.—For the erection of public baths the Corporation has accepted Messrs. E. A. Russell, Ltd., Walthamstow, E.17, at £9,098.

West Ham.—ADDITIONS.—Mr. F. J. Hollister, A.Inst.Struct.E., architect to the Glico Petroleum, Ltd., has prepared plans for alterations and additions to the warehouse for oil refining plant. The work will cost about £4,000, and the builders are Messrs. Clemens Bros., 77, Derby-road, East Ham

Westbourne Park.—EXTENSION.—The Great Western Railway Co.'s motor garage is to be extended. No contracts have been placed for the work.

Wood Green.—BANK.—Barclays Bank, 32-33, Hardy-terrace, will be pulled down and rebuilt to plans by the bank's architects as a result of the Tube extension

NEW CINEMAS

Abroad.—The British Consul-General at Havana states that a contract is reported to have been signed for the erection of a large block of flats of ten stories with a cinema theatre and restaurant on an attractive site in a central part of the city of Havana, Cuba. The architects in charge of the construction work are Messrs. Castella & Lecouna, Edificio Metropolitana 223, Havana. The project is understood to be a private enterprise of Dr. Carlos Miguel de Cespedes, former Secretary of Public Works. The British Consul-General would be glad to arrange that any advertising literature forwarded in connection with this undertaking should reach the proper quarter. Ref. 26250/1931 should be quoted.

Birkdale.—Plans for the proposed cinema in Liverpool-road, for Messrs. Haigh, Lowe and Tonge, have been passed by the Southport Corporation.

Edgware.—Mr. Leslie Raymond, F.S.I., estate agent, Golders Green, N.W.1, is said to have disposed of a site at the Mall and Manor Park-crescent, Edgware, on which a super-cinema will be erected. No further information is as yet available.

Evesham, Worcs.—Messrs. Satchwell and Roberts, Waterloo-street, Birmingham, are architects for the cinema to be erected on a site in Portland-street, Bengeworth, for Super-Cinema and Theatre (Evesham), Ltd. As also given in our issue of March 13, Messrs. V. Morrall and F. M. Stubbs propose a cinema on the site of motor showrooms at Port-street and Burford-road.

Glasgow.—The construction is proposed of a picture house at Argyle-street, for Mr. Benjamin Jacobs. Mr. George Boswell, 236, West George-street, Glasgow, is the architect.

Hastings.—Tenders for excavating and concreting work at the new cinema, Hastings, are now being invited. Particulars may be had on application to the architect, Mr. J. B. Mendham, A.R.I.B.A., 1, Carteret-street, Westminster, S.W.1.

Hayes.—Extensions are proposed to the "Regent" cinema, belonging to Broadmead Cinemas, Ltd.

Horsforth.—Mr. E. Phillips Briggs, builder, The Granges, Hall-lane, Horsforth, near Leeds, proposes to erect a cinema on land in New-road site off Sunny Bank, Horsforth. Plans are being prepared under own supervision.

Kingston-on-Thames. — The "Central" cinema, in Richmond-road, is to be rebuilt to plans by Mr. Robert Cromie, F.R.I.B.A., 35, Baker-street, W.1. It will seat 2,500. Mr. James Watt, of Catford, S.E., is the contractor.

Maybole.—Messrs. Stellmacs, Ltd., 57, Oswald-street, Glasgow, have got out plans for the proposed 679-capacity cinema at Maybole, for the Carrick Cinema Company.

Welling (Kent).—A cinema is proposed on a site here.

Woolwich.—The B.C. have agreed to lease a portion of the Shepherd's Farm Estate, with a frontage of 400 feet to Well Hall-road, for the erection thereon of a cinema.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1931.

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Masons.	Bricklayers.	Carpenters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Accrington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Aldershot	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Alfreton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Alnwick	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Altrincham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ashford (Kent)	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Ashington	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Ashton-under-Lyne	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Aylsham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Banbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Barnsley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Barnstaple	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Barrow-in-Furness	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Barry	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Basingstoke	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bath	1/5	1/5	1/5	1/5	1/5	[illegible]	1/5	1/0½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Berwick	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bexhill	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Birkenhead	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Birmingham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bishop Auckland	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Blackburn	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Blackpool	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bognor Regis	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11¾
Bolton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bradford-on-Avon	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Braintree	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bridlington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bromsgrove	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bromyard	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Bungay	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Burnley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury St. Edmunds	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Buxton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cambridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Canterbury	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Cardiff	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Carlisle	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Chatham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Chesterfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Chorley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cirencester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Clacton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cranbrook	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cromer	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Darlington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Deal	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Denbigh	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Derby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Devizes	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Dewsbury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Doncaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Dorchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11¾
Dorking	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Dovercourt	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Driffield	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Droitwich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
E.Glam.(Mon.Val.)	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ely	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Exeter	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Exmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Fakenham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11¼
Felixstowe	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Frome	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Glossop	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Godalming	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Goole	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Gosport	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Grantham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Gt. Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Grimsby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Guildford	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Halifax	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Harpenden	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Harrogate	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hartlepools	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Harwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Hatfield	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hednesford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Hereford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Herne Bay	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Hertford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hitchin	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hoddesdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Holt	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Huddersfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hull	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hunstanton	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11¼
Huntingdon	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11¾
Isle of Wight	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Keighley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Kettering	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Kidderminster	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Kings Lynn	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11¾
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Sp	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leicester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leighton Buzzard	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Littlehampton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11¾
Liverpool	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Llandudno	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Llanelly	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
London—								
12 m. radius	1/8	1/8	1/8	1/8*	1/8	1/8	1/7	1/3
12-15 m. radius	1/7½	1/7½	1/7½	1/7½*	1/7½	1/7½	1/6½	1/2½
Loughborough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Lowestoft	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Macclesfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Maidstone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Malvern	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Mansfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Margate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
MarketHarborough	1 5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Matlock	1 5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Melton Constable	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Melton Mowbray	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Merthyr Tydfil	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Middlesbrough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Newark	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Newbury	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11¾
Newcastle-on-Tyne	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Newcastle-u-Lyme	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
New Forest	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11¾
Newmarket	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Newport, Mon.	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Northampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Norwich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Nottingham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Nuneaton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Paignton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Peterborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Pontypridd	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ramsgate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Redcar	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Redditch	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Reigate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Retford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Ripon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Saffron Walden	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helens	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Sawbridgeworth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Saxmundham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Scarborough	1/6	1/6	1/6	1/6	1/6	1 6	1/6	1/1½
Sevenoaks	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Sheffield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Sittingbourne	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southport	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
South Shields	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stevenage	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Stockport	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stockton-on-Tees	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stoke-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stourbridge	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stourport	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Stowmarket	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Stratford-on-Avon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Sunderland	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Swaffham	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Swansea	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Tamworth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Taunton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Thetford	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Torquay	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Totnes	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Trowbridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11¾
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Uttoxeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Walsden	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warminster	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Warrington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warwick	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wells (Norfolk)	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Welwyn Gar. City	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
West Bromwich	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Weston-sup-Mare	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Weymouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Whitby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wigan	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Winchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wisbech	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Wolverhampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Woodbridge	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Worksop	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Worthing	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11¾
Wrexham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wycombe	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wymondham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2

*The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, as and from the 1st February, 1931, is 1/10½ per hour.

For Building Trade wages in Scotland, see page 863.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender: that a fair wages clause shall be observed, that no allowance will be made for tenders and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations :—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor D.S.: Clerk, C.; Town Clerk T.C.: County Engineer, C.E.: County Surveyor. C.S.: Surveyor, S. Engineer, E.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

MAY 11.

Bankside.—Building.—Central control station building at Park-st., Bankside, for Central Electricity Board. R. H. Fox, secretary, Trafalgar-buildings, 1, Charing-cross, W.C.2. Dep. £2 2s.

Barnstaple.—Bath.—Reinforced concrete swimming bath, together with entrance buildings, dressing-boxes, filtration plant, boating pool, and other incidental works, for T.C. J. H. L. Brewer, T.C. Dep. £2 2s.

Blackpool.—Painting.—At Victoria Hospital. W. J. Cunliffe, secretary.

Bridport.—Widening.—Of portion of St. Andrew's-rd., for T.C. R. N. Armstrong, B.S. Dep. £2 2s.

Bury St. Edmund's.—Houses.—32 houses, in Prior's-rd., for T.C. R. H. Beaumont, B.S. Dep. £2 2s.

Caernarvon.—Altering.—Victoria Drill Hall, for Caernarvonshire Territorial Army Association. Ll.-Jones, architect and surveyor, Lloyds Bank-chams.

Chelmsford.—Bungalows.—Six pairs bungalows at Boreham, including construction of 180 yds. of Estate-rd., for R.D.C. T. T. Thomas, E. and S. Dep. £2 2s.

Colchester.—Laundry.—New laundry at Isolation Hospital, for T.C. Baker & Burton, F.R.I.B.A., 15a, High-st. Dep. £1 1s.

Dewsbury.—Painting.—For (*a*) painting and decoration of diphtheria block and No. 2 scarlet fever block, and (*b*) cleaning of No. 1 scarlet fever block at Mitchell Laithes Hospital, for Joint Hospital Board. Borough Architect and Surveyor.

Doncaster.—Additions.—Alterations and additions to public health offices, Wood-st., for C.B. F. Oscar Kirby, B.E., 2, Priory-place.

Esher.—Cottages and Flats.—For Esher and The Dittons U.D.C. Clerk, Council Offices. Dep. £3 3s.

Esher.—Painting.—External of 40 cottages, for U.D.C. L. V. S. Watson, clerk. Dep. £1 1s.

Glossop.—Pavilion.—Sports pavilion and conveniences at Manor-pk., for T.C. Geo. Faulds, B.S. Dep. £1 1s

Grimsby.—Alterations.—To Scartho Council school, for T.C. H. C. Scaping, architect, Court-chams. Dep. £2.

Ham.—Redecorations.—External, of 18 houses, Lock and Craig-rds., for U.D.C. S. C. T. Littlewood, clerk.

Hull.—Lavatories.—Public lavatories and shops, corner of Craven-st. and Holderness-rd., for T.C. D. Harvey, A.R.I.B.A., City Architect. Dep. £2 2s.

Kingsbury.—House.—Erection of, at the Maternity Hospital, for the Willesden District Council. The Clerk, Town Hall, Dyne-rd., N.W.6. Dep. £2 2s.

Kingston-upon-Hull.—Fencing.—790 lin. yds. of arris pale fencing, 5 ft. high, on allotments, East Hull housing site, Portobello-st. and Bilton-grove, for T.C. H. Hamer, City E.

Leicester.—Houses.—For the Corporation. Chairman, Housing Committee, 18, Highcross-st. Dep. £2 2s.

Liskeard.—Rebuilding.—Of premises in Market-st., for J. H. Chalice. Higman & Taylor, L. & A.R.I.B.A., architects.

London.—Cleaning, Painting and Repairs.—For the L.C.C. Clerk, County Hall, Westminster Bridge, S.E.1. Dep. £1.

London.—Extensions.—Of motor garage at Westbourne Park, W., for G.W.R. Engineer at Paddington Station, W.2. Dep. £2 2s.

Manchester.—Conversion.—Of 5, Talbot-rd., Old Trafford, into parcels office, for T.C. City Architect. Dep. £1 1s.

Musselburgh.—Housing.—73 flatted three-apartment houses and 24 flatted two-apartment houses, all at Stoneyhill, for T.C. B.S. Dep. £3 3s.

Portsmouth.—Redecoration.—Internal of Southsea Castle Teahouse, for Corporation. City E. Dep. £1 1s.

Reigate.—Painting.—At two cottages, 37 and 38, Reigate Heath, for T.C. G. G. Sanderson, B.S.

Scarborough.—Proposed Premises.—Westborough to Victoria-rd. Borough Engineer, Town Hall. Dep. £2 2s.

Southall-Norwood. — Pavilion. — Sports pavilion, Southall-pk.; tool shed and mess room in Southall-pk.; demolition and clearing away of old brick buildings in Southall-pk.; public convenience at recreation ground, and shelter at recreation ground, for U.D.C. J. B. Thomson, E. and S. Dep. £2 2s.

Stockport.—Houses.—70, on Hempshaw-lane site and 40 or more on Nangreave-rd. site, for C.B. B.S

Sutton-in-Ashfield.—Houses.—76 non-parlour type, also for construction of new roads, approaches and sewers, on Station-rd. site, for U.D.C. Warner & Dean, architects and surveyors, Mansfield-rd. Dep. £3 3s.

Teddington.—Open-air Swimming Bath.—For the U.D.C. Clerk, Council Offices. Dep. £1 1s.

West Riding.—Installation.—Of electric light at Boroughbridge new school, for C.C. Education Officer, County Hall, Wakefield.

Wrexham. — Houses. — 14 semi-detached, at Maesydre, for T.C. J. England, Borough Engineer and Architect, 1, Grosvenor-rd. Dep. £2 2s.

MAY 12.

Dagenham.—School.—For the Essex C.C. County Architect, County Hall, Chelmsford. Dep. £2 2s. to the County Accountant.

Elie and Earlsferry.—Houses.—10 houses, at Woodside-pk., Elie, for T.C. A. D. Haxton, architect, Commercial-rd., Leven.

Hove.—Lighting.—Installing electric lighting at Ellen-st. school, for E.C. H. P. Barwood, secretary, Education Office, Third-av.

Kilbrew.—House.—At Kilbrew, Curragha, Co. Meath, for Irish Land Commission. M. Deegan, secretary, Upper Merrion-st., Dublin. Dep. £1.

Kirriemuir.—Lighting.—Installation of public lighting system by electricity, for T.C. J. S. Bruce, B.S.

Leeds.—Painting.—Also cleaning at Infectious Diseases Hospital, Seacroft, and Tuberculosis Sanatorium, Killingbeck, for T.C. Thos. Thornton, T.C.

Leicester.—Fencing.—1,500 yds. of wrought iron fencing at Braunstone and Park estates, for T.C. A. T. Gooseman, City S. Dep. £1.

Near Sheffield.—Painting.—Internal painting and decorating at Swallownest Hospital, for South Rotherham and Kiveton Park District Isolation Hospital Committee. A. H. Styring, clerk, 6, North Church-st., Sheffield.

Nottingham.—School.—Central school for girls, Gordon-rd., for T.C. T. Wallis Gordon, City E. and S. Dep. £2.

Nottingham.—Additions.—Alterations and additions to transformer sub-station, Churchfield-lane, Radford, for T.C. T. Wallis Gordon, City E. and S. Dep. £2.

Nottingham.—Painting.—Also washing, white-washing, etc., at General Hospital, for Committee. Peter M. MacColl, House Governor and Secretary.

Preston.—Houses.—56, in Basil-st., for T.C. W. Platt, B.E. and S., Birley-st. Dep. £2.

Sheffield.—Heating.—Heating installation at new central library and art gallery, for T.C. W. Geo. Davies, F.R.I.B.A., City Architect. Dep. £2.

South Shields.—Installation.—Electrical wiring in 68 houses on Stanley-terr. site and 50 houses on Ridgeway site, for C.B. J. Paton Watson, B.E.

Walsingham.—Cottages.—30, for R.D.C. W. H. Moffatt, E. and S. Dep. £1 1s.

Wicklow.—Houses.—Erection of number of houses at Dunbar-rd., Wicklow, and laying of 4 in. water main and complete sewerage mains in connection, for U.D.C. H. J. MacPhail, T.C.

MAY 13.

Birkdale.—Vicarage.—In Kirkstall-rd., for Church Council. G C Hewitt, 10, Carnarvon-rd. Dep. £1

Cheadle Hulme.—School.—For the Cheshire C.C. L. S. Jones, Education Offices, 24, St. Peters-gate, Stockport. Dep. £2 2s.

Downpatrick. — Walls. — Timber sheeting and plastering of walls of corridors, tiling and laying floors in terrazzo paving at Mental Hospital. C.S. Office, Downpatrick.

***Loughborough.**—Flats.—Borough Surveyor, Town Hall. Dep. £3 3s.

Near Treharris.—Painting.—Also repairs to South Wales and Monmouthshire Industrial school, near Treharris, Glam., for Governors. Johnson, Richards & Rees, architects and surveyors, Merthyr.

Nottingham.—Painting.—Cleaning and painting at various properties, for E.C. A. H. Whipple, Director of Education. Dep. £1.

Portsmouth.—Painting.—Steel chimney shaft, at Electricity Works, Gunwharf-rd., for T.C. Engineer and Manager, Electricity Department, High-st., Portsmouth

Rhymney. — Extensions. — Including new gymnasium, physical laboratory, etc., at secondary school, for Monmouthshire E.C. John Bain, F.R.I.B.A., County Hall, Newport, Mon. Dep. £2 2s.

MAY 14.

Devon.—Improvements.—Colebrooke: alteration of windows. East Worlington: alterations and additions to offices. Shebbear: erection of garage at teacher's house. South Tawton: erection of new offices, for C.C. County Architect, 97, Heavitree-rd., Exeter.

Dublin.—Velarium.—New velarium for round room, Mansion House, for Corporation. City Architect, Exchange-buildings, Lord Edward-st.

Glasgow.—Shops.—9, at Knightswood area, for T.C. D. Stenhouse, T.C.

Hull.—Shed.—Steel-framed asbestos-covered shed at Fenchurch-st. depot, for T.C. D. Harvey, A.R.I.B.A., City Architect. Dep. £1 1s.

Maesteg-Bridgend.—New Employment Exchange. —For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Manchester.—Shelter.—Ladies' dressing shelter at open-air baths at Alexandra-pk., for T.C. City Architect. Dep. 10s. 6d.

Neath.—Houses.—49 non-parlour type, for R.D.C. D. M. Davies, L.R.I.B.A., engineer and architect. Dep. £2 2s.

St. Germans.—Houses.—6 working-class dwellings at Downderry, in parish of St. Germans, for R.D.C. J. Percival Heath, clerk, East Cornwall House, Torpoint. Dep. £2 2s.

Sandbach.—Additions.—To Sandbach school, for Governors of Sandbach School Foundation. A. Price & Sons, architects. Dep. £3 3s.

MAY 15.

***Atherton.**—Enlargement and Alteration.—To Lane Top schools Taylor & Young, 19, Chapel Walks, Manchester. Dep. £2 2s.

Edinburgh.—Installation.—Of heating apparatus at General Post Office, for H.M.O.W. Engineer, H.M. Office of Works, 122, George-st. Dep. £1 1s.

Hull.—Building.—Medical superintendent's residence, City Hospital, Cottingham, for T.C. D. Harvey, A.R.I.B.A., City Architect. Dep. £2 2s.

Littlewick Green, Maidenhead.—Telephone Exchange.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Manchester.—Bricks.—Housing Director, Town Hall.

Oldbury.—Houses.—66, at Warley Hall estate, for U.D.C. W. Greenwood, E. and S. Dep. £2 2s.

Skidby.—House.—House and farm buildings at Bottoms-rd., for East Riding C.C. Henry T. Tate, County Land Agent, County Hall, Beverley.

Swaffham.—Houses.—Narborough, 3 pairs, and Sporle, 3 pairs, for R.D.C. I. Shingles, clerk. Dep. £1.

Warrington.—School.—Erection of Richard Fairclough Council school at Latchford to accommodate 960 scholars, for C.B. Wright & Hamlyn, architects, Patten-chams., Winmarleigh-st. Dep. £10 10s.

Worthing.—Clinic.—Foundations of clinic block at Chapel-rd., for T.C. P. E. Harvey, B.S., or C. Cowles-Voysey, F.R.I.B.A., 14, Gray's Inn-sq., London, W.C.1.

MAY 16.

Barnet.—New County Council Grammar School, for the Herts C.C. Clerk, Education Office, Hertford. Dep. £1 1s.

Batley.—Painting.—Of outside woodwork at Blenheim House, J. S. Holloway, 976, Scott Hall-rd., Moortown, Leeds.

Bolton.—Houses.—For the Corporation. Town Clerk, Town Hall. Dep. £2 2s.

Boxmoor.—Demolition.—Of two flint and brick cottages, 331 and 333, London-rd., Hemel Hempsted, and one brick cottage known as "The Old Boatman Cottage," situated near Lock House, opposite Heath-pk. Hotel, Hemel Hempsted, for Trustees. L. F. Smeathman, Clerk to Trustees, Hemel Hempsted.

Bridge.—Houses.—8 at Breach Down, Barham, for R.D.C. H. K. Blundell, building surveyor.

Dunfermline.—School.—For Fife C.C. J. C. Cunningham, architect, 1, Gregory-pl., St. Andrews.

Edinburgh.—Stables.—Alterations at 1-3, Dewar Place-lane, for police garage, for T.C. E. J. MacRae, A.R.I.B.A., City Architect.

Glasgow.—Alterations.—At St. Andrew's Halls, for T.C. D. Stenhouse, T.C.

Tadcaster.—Houses.—44 houses at Tadcaster and 50 houses at Swillington, and also construction of roads and sewers and incidental works in connection, for R.D.C. H. W. Boardman, S. Dep. £2 2s.

West Riding.—Installation.—Of electric lighting at Luddenden Foot Council school, for C.C. A. Beilby, Divisional Clerk, Education Office, Sowerby Bridge.

MAY 18.

***Altrincham.**—School.—New primary school at Oldfield Brow, for Chester C.C. F. Anstead Browne, F.R.I.B.A., County Architect, Chester. Dep. £2 2s.

Brownhills.—Houses.—100, for U.D.C. Norman Waine, clerk. Dep. £1.

***Camberwell.**—Repairs.—To Art Gallery. Historical Works and Records Committee, Town Hall, S.E.5.

Carlisle.—Painting.—At Cumberland Infirmary. J. G. Howitt, secretary.

Dorchester.—Rebuilding.—Of Thurman's premises, South-st. Jackson & Greenen, architects, 7, Yelverton-rd., Bournemouth.

Edinburgh.—Painting.—At Royal Infirmary and its branches, for Royal Infirmary. H. Maw, secretary and treasurer.

Glamorgan.—School.—New secondary school at Tonyrefail: Pontyclun school: converting temporary premises into handicraft and domestic subjects centre and clinic; Groesfaen Farm, Bargoed: new cowshed for 16 cows; Nantymoel infants' school: remodelling; County School for Blind, Bridgend: new gymnasium, etc.; and Cymmer Afan infants' school: new heating chamber and teachers' room, etc., for C.C. Henry Rowland, clerk, Glamorgan County Hall, Cardiff.

Haslingden.—Houses.—20 dwelling houses on Private-lane site, for T.C. R. Taylor, B.S. Dep. £2 2s.

Leicester.—Secondary School, etc. The Director of Education, Town Hall. Dep. £1 1s.

Liverpool.—Building.—New elementary school for senior boys at Grandison-rd., Clubmoor, and new Holt secondary school for boys at Wavertree, for T.C. Land Steward and Surveyor. Dep. £7 7s.

Maldon.—Dwellings.—8 pairs. Goldhanger-rd., Heybridge, and 3 pairs, The Village, Stow Maries for R.D.C. Wm. Almond, S., 6, Market-hill.

Marple.—Houses.—8 on Brindley Farm estate, for U.D.C. Halliday & Agate, architects, 14, John Dalton-st., Manchester. Dep. £1 1s.

Milford Haven.—Houses.—110 non-parlour, near Priory Lodge, for U.D.C. E. and S. Dep. £2.

Sandwich.—Supports.—New supports for Curfew Bell in St. Peter's Church Tower, for T.C. Wm. R. Moultrie, B.S. Dep. £1.

Sheffield.—Houses.—128 non-parlour type on Manor estate (building scheme No. 19), and 22 non-parlour type on Longley estate (building scheme No. 21), for T.C. W. Geo. Davies, F.R.I.B.A., City Architect. Dep. £2.
Tadcaster.—Extensions.—To Garforth Infectious Diseases Hospital, for R.D.C. H. W. Boardman, E. and S. Dep. £2 2s.
Wednesfield.—Houses.—58 on Amos-lane and Frederick-rd. housing site, for U.D.C. A. H. Lawrence, S. Dep. £2 2s.

MAY 19.

Bray.—Cottage.—At Bray, Co. Wicklow, for Irish Sailors' and Soldiers' Land Trust. W. J. Brown, architect, 50, Upper Mount-st., Dublin. Dep. £2 2s.
Buckhurst Hill.—Alterations.—To branch P.O., for H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.
Honley.—Installation.—Of electric light at new grammar school and caretaker's house, for West Riding C.C. Education Officer, County Hall, Wakefield.
Hyde.—Houses.—92, on Peel-st. site, for T.C. B.S. Dep. £2 2s.
Tottenham.—Branch Library.—Erection of, in Vincent-rd., West Green, for the U.D.C. Clerk, Town Hall, N.15. Dep. £2.

MAY 20.

***Coventry.**—Houses.—Erection of, on the Henlane housing estate, for the Corporation. Housing Director, Council House. Dep. £5 5s.
Cromer.—Alterations.—And additions to P.O., for H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.
Mullingar.—Shed.—Machinery shed in Council's premises, for Westmeath C.C. C.S., County Buildings, Mullingar.
Tyldesley-with-Shakerley.—Houses.—52 on Mosley Common site, for U.D.C. F. E. Jones, E. and S. Dep. £1 1s.

MAY 21.

Hibaldstow.—Offices.—Enlargement of playground and new out-offices of Hibaldstow Council school, and asphalting of playground at Middle Rasen Council school, for Lindsey C.C. Director of Education, 286, High-st., Lincoln.
Newcastle-upon-Tyne.—Houses.—103 on Benwell Dene estate, Benwell, and 327 on St. Anthony's housing estate (section "A"), for T.C. Housing Architect, 18, Cloth Market. Dep. £2 2s.
Nottingham.—Houses.—552 houses and 24 flats on Western Boulevard estate, for T.C. E. Phillips, Housing Architect, Exchange-bldgs, East, Nottingham. Dep. £1.
Richmond.—Demolitions.—Alterations to existing buildings in connection with proposed new fire station. Town Clerk, Town Hall. Dep. £2 2s.

MAY 26.

Finchley.—Repairs.—At Council's schools, for U.D.C. P. T. Harrison, E., 9, The Hawthorns, Regent's Park-rd., Finchley. Dep. £1 1s.
Underhill, Barnet.—School.—For the Herts C.C. County Surveyor and Architect, Hatfield. Dep. £2 2s.

MAY 27.

Northampton.—Site Works, etc.—For the Central Electricity Board. The Secretary, Trafalgar Buildings, 1 Charing Cross, W.C.2. Dep. £1 1s.
Prestwich.—Houses.—56 on land fronting Heywood-rd., Daneshill, and Bury Old-rd., for U.D.C. H. T. Ainsworth, architect and surveyor. Dep. £2 2s.

MAY 28.

Bristol.—Lighting.—Electric lighting of houses in Richmond-villas, Richmond-ter. and King-st., Avonmouth, for Port Authority. W. P. Wordsworth, chief engineer.
***Preston, Paignton.**—Telephone Exchange.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

MAY 29.

***Winchester.**—Extensions and Alterations.—To County School for Girls. Clerk, The Castle, Winchester. Dep. £1 1s. payable to Hampshire C.C.

NO DATE.

Durham.—Baths.—Also washhouses, for T.C. John Wilfried Green, City Engineer, Surveyor and Architect. Dep. £5 5s.
Fishguard.—Hall.—Erection of St. Mary's Church Hall and Institute. D. Frank Ingleton, L.R.I.B.A., architect and surveyor, 9, Victoria-pl., Haverfordwest.
Gwalchmai.—House.—Minister's house, for Moria Congregational Church, Gwalchmai. Richard & Douglas Hall, F & A.R.I.B.A. ,architects, Bangor.
Headington.—Cottages.—18 at Littlemore and 8 at Marston, for R.D.C. W. Austin Daft, A.R.I.B.A., 9, New-rd., Oxford. Dep. £2 2s.
Keighley.—Painting.—Also decorating reading-room of public library. R. S. Crossley, librarian.
Leeds.—Extensions.—To 12, Cavendish-rd., for Cavendish-rd. Presbyterian Church. V. Dyson, architect, Westfield Cottage, Wood-lane, Chapeltown, Leeds.
Lisdoonvarna Spa.—Counter.—New counter, for the Lisdoonvarna Spa Wells Trust Committee. John Tierney, secretary.
Seaforth.—Additions.—Alterations and additions at county police station, for Lancashire C.C. Stephen Wilkinson, F.R.I.B.A., 16, Ribblesdale-pl., Preston. Dep. £2.
Walkden.—Trades.—Plastering and plumber's work for semi-detached, opposite Ashton and Lea Golf Club. A. Crompton & Sons, builders.
Weston-super-Mare.—School.—Proposed new county school for 750 pupils, for Somerset C.C. A. J. Toomer, County Architect, Park-st., Taunton. Dep. £2 2s.
Wisbech.—Cottages.—Three cottages, Chase-st., for T. Lee, Senr. P. O. Pierce, architect and surveyor, 41, Norwich-rd., Wisbech.

MATERIALS, etc.

MAY 11.

Brighton.—Tubes.—9-in. to 54-in. concrete tubes, for C.B. D. Edwards, B.E. & S.
Farnworth.—Granite Setts.—For U.D.C. F. Ashton, S.
Glasgow.—Cement, etc.—For Electricity Dept. General Manager, Electricity Dept., 4, West Regent-st., Glasgow, C.2.
London.—Bricks, etc.—For M.W.B. G. F. Stringer, clerk, 173, Rosebery-av., E.C.1.

MAY 12.

Bulgaria.—Iron.—For Ministry of Railways. Dept. of Overseas, 35, Old Queen-st., S.W.1. (G. 10318.)

MAY 13.

Salford.—Pipes.—3,000 sq. yds. filter tiles and 50 tons pipes and valves at sewage works, Weaste, for T.C. City E.

MAY 16.

Leeds.—Builder's Materials.—For Gas Department. C. S. Shapley, Engineer and General Manager, Gas Offices, Market Hall.

NO DATE.

Birmingham.—Timber, etc.—For Birmingham Tame and Rea District Drainage Board. Engineer, Rookery Park, Erdington, Birmingham.
St. Germans.—Stone, etc.—For R.D.C. R. L. Bailey, S.

ENGINEERING, IRON AND STEEL

MAY 11.

Derby.—Bridge.—Over Markeaton brook, for C.B. E. H. Bennett, B.S., 15, Tenant-st. Dep. £2.
Derby.—Bridge.—Over L. & N.E. Rly., for C.B. E. H. Bennett, B.S., 15, Tenant-street. Dep. £2.
Inverbervie.—Bridge.—Reinforced concrete bridge over Bervie water, for Kincardine C.C. D. J. Bell, C.E., C.E. & S., Stonehaven. Dep. £2 2s.
Romsey.—Sewage.—Sewage purification works, comprising grit chambers, sedimentation tanks, trickling filters, and sludge digestion tanks, for T.C. B. W. Attlee, T.C. Dep. £3 3s.
Watford.—Tanks.—Three mass concrete storm water standby tanks, for T.C. W. W. Newman, B.E. Dep. £2 2s.

MAY 12.

Cordoba (Argentina).—Dam.—Construction of the works of San Roque dam, proposed by the Ministry of Public Works of Cordoba. Argentine Embassy, 30, Grosvenor-gdns, S.W.1.
Dumfries.—Chamber.—Screening chamber for Kirkconnel water-old supply, for C.C. W. C. Easton, chartered civil engineer, 183, West George-st., Glasgow, C.2. Dep. 10s. 6d.
Llwchwr.—Bridge.—Reinforced concrete bridge over River Llan and approaches thereto for length of approximately 450 yds., for U.D.C. F. T. James, E. and S., "Penybryn," Alexandra-rd., Gorseinon. Dep. £2 2s.

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St. Helens.—Tank.—Construction of brick and puddle tank, with reinforced concrete roof, for storage of tar and ammonia liquor at Gas Works, for T.C. F. E. Ward, Gas Engineer. Dep. £3.

MAY 13.

Forden.—Water Supply.—For R.D.C. F. Hunt, Kerry-st., Montgomery.
London.—Reservoir.—Covered service reservoir in mass and reinforced concrete, at Plumstead Common, for M.W.B Chief E., 173, Rosebery-av. Dep. £10.

MAY 14.

Bristol.—Widening.—Main line beween South Wales Junction and bridge over Floating Harbour, for G.W.R. Engineer, Paddington Station, W.2. Dep. £2 2s.
St. Asaph.—Water Supply.—For parish of Cefn, for R.D.C. W. Brookes Parry, clerk, 34, Water-st., Rhyl. Dep. £2 2s.

MAY 15.

Mitcham.—Drainage.—Also sewerage, for U.D.C. Riley Schofield, E. & S. Dep. £50.

MAY 16.

Norfolk.—Bridge.—Two small reinforced concrete road bridges of spans of 14 ft. and 16 ft. respectively near Hilgay Station, West Norfolk, for C.C. S. H. Warren, C.S., 9, Queen-st., Norwich. Dep. £5.

MAY 18.

Abingdon.—Sewerage.—Intake works and other works incidental thereto at Sandford, for Corporation. W. H. Lewis, The Abbey House, Abingdon. Dep. £2 2s.
Callander.—Water Works.—Construction of temporary intake works, receiving chamber, temporary break-pressure tank, and for taking delivery at Callander Station, conveying to site of works, and laying and jointing about 5½ miles of 8-in., 7-in. and 6-in. cast-iron pipes, or, alternatively, bitumen-lined steel pipes, together with incidental and relative works, at Keltie, for T.C. John M'Michael, T.C.
Holland (Lincolnshire).—Bridge.—Reinforced concrete bridge, width between parapets 136 ft., length 45 ft. and span 6 ft., and contingent works over Whaplode River, near Holbeach, for C.C. Wm. A. Rogerson, C.S. Dep. £3 3s.
Llanwrtyd Wells.—Sewerage.—Sewage disposal works, for U.D.C. J. Owen Parry, E., Arcade-chams., Ammanford. Dep. £3 3s.
London.—Reconstruction.—Western arm of pier, pier, Woolwich, for L.C.C. Chief Engineer, The Old County Hall, Spring-gardens, S.W.1. Dep. £10.
Whittlesey.—Tank.—Contract No. 2.—Reinforced concrete water tower, for U.D.C. G. Bertram Kershaw, chartered civil engineer, 9, Victoria-st., Westminster, S.W.1. Dep. £5.

MAY 19.

Chesterfield.—Extension.—Of sewage disposal works at Old Whittington, for T.C. S. Thornhill, Manager, Sewage Disposal Works, Newbridge-lane, Old Whittington, Chesterfield. Dep. £2.
Chingford.—Sewage.—New sludge beds at sewage works for U.D.C. S. J. Hellier, E. and S. Dep. £2 2s

ROAD, SEWERAGE, AND WATER WORKS.

MAY 11.

Buckhurst Hill.—Spraying.—About 50,000 yds. sup. road surface with "tar" or "cold emulsion," for U.D.C. S.
Glasgow.—Streets.—Laying of certain streets in city with compressed rock asphalt, for T.C. D. Stenhouse, T.C.
Manchester.—Paving.—Various roads, for T.C. F. E. Warbreck Howell, T.C. Dep. £1.
Merton and Morden.—Surfacing.—Surfacing with bituminous material about 4,500 sq. yds. of carriageway in Green-lane, Morden, for U.D.C. G. Jerram, E. Dep. £1.
Swinton and Pendlebury.—Making-up of Houghton-lane, for U.D.C. H. Entwisle, E. and S.
Watford.—Main.—12 in. stoneware pipe diversion of washout from rising main, Holywell Farm, and other appurtenant works, for T.C. W. W. Newman, A.M.I.C.E., B.E. Dep. £2 2s.

MAY 12.

Chingford.—Improvements.—To Endlebury-rd., for U.D.C. S. J. Hellier, E. and S. Dep. £2 2s.
Rossington.—Asphalting.—Asphalting, etc., to playgrounds, and ploughing, rolling, of playing-field, and sowing down to grass at Council school, for West Riding E.C. A. J. Dempster, Divisional Clerk, Winchester House, Scot-lane, Doncaster.
South Shields.—Paving.—Lily-cres. and Lilac-av. on Council's housing estate at Marsden, Whitburn Colliery, for R.D.C.. W. Welsh, S.
Watford.—Making-up.—Woodland-drive (part 2), The Gardens (part 1), Orchard-close, Kelmscott-cres. and Bushey Mill-cres., for T.C. W. W. Newman, B.E. Dep. £2 2s.

MAY 13.

Ebbw Vale.—Tarspraying.—For U.D.C. P. I. Davies, E. and S. Dep. £2.

MAY 14.

Bucks.—Reconstruction.—Of Amersham-Cokes-lane, Aylesbury-Uxbridge-rd., for C.C. E. Winfield, C.S., Aylesbury.
Camborne.—Paving.—Also alteration to forecourt of Wesley Chapel. J. R. Buddle, Secretary to Trustees, Chapel-st.
Durham.—Tarspraying.—Surface dressing and tarspraying of county roads with bitumen and tar, for C.C. Wm. J. Merrett, C.E. and S., 43, Old Elvet, Durham.
Formby.—Sewer.—At rear of Victoria-buildings, for U.D.C. E. Kendrick Gollan, E. and S.
Lanark.—Road.—Road construction work, etc., at Netherton, near Wishaw, for C.C. P. C. Smith,

Housing and Town Planning Department, 13, Clydesdale-st., Hamilton.

London. — Paving. — Providing and laying creosoted deal blocks at High-st., Notting Hill Gate, from Church-st. to Kensington Palace-gdns., and The Mall, from Palace Gardens-terrace to Church-st., for Kensington B.C. B.E. and S.

MAY 15.

Guildford.—Sewer.—9-in. dia. soil sewer complete with manholes in Shepherd's-lane, Stoughton, from a point opposite Vicarage to Borough boundary, for T.C. J. W. Hipwood, B.S. Dep. £2 2s.

Wilts.—Reconstruction.—Realigning, strengthening and surfacing with asphalt length of approximately one mile of main road, for C.C. H. S. Ganderton, C.S., Trowbridge. Dep. £5.

Wilts.—Widening.—Of second section of London-Bath trunk road between Marlborough borough boundary and Beckhampton, length approximately 5½ miles, for C.C. H. S. Ganderton, C.S., Trowbridge. Dep. £5.

MAY 16.

Batley.—Alterations.—To electricity mains at County Poor Law Institution, Batley, for West Riding C.C. Percy O. Platts, A.R.I.B.A., West Riding Architect, County Hall, Wakefield.

Cheadle and Gatley.—Tarspraying.—Approximate 150,000 super yds., for U.D.C. J. Wrest, E. and S.

Egypt.—Mains.—Supply and laying of 765 metres of cast-iron or steel socket pipes in connection with extension of water supply mains at Fakous, for Egyptian Ministry of the Interior. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. G.X. 10309.)

Kesteven.—Road.—Construction of short by-pass road at Wellingore, Lincoln-Grantham-rd., for C.C. W. B. Purser, C.S., Sleaford. Dep. £5.

MAY 18.

Edmonton.—Making-up.—Alpha-pl., Halstead-rd., between Firs-lane and Ridge-rd., and Halstead-rd. between Ridge-rd. and Church-st., for U.D.C. E. J. Willis, E. and S. Dep. £2 2s.

Leeds.—Repairs.—To tar macadam footpaths in various parks, for T.C. J. E. Acfield, City E.

MAY 19.

Bushey.—Tarmacadam.—Resurfacing with "car pave" or other approved tarmacadam:—Beechcroft-rd., Nightingale-rd., and Glencoe-rd., including other contingent works, for U.D.C. E. E. Ryder, E. & S.

Public Appointments

MAY 11.

Chelmsford. — Senior Assistant Architect. — Jno. Stuart, F.R.I.B.A., County Hall.

★**Grimsby.**—Clerk of Works. Secretary-Superintendent, Grimsby and District Hospital.

Swansea.—Clerk of Works.—Town Clerk, The Guildhall.

MAY 12.

Dewsbury.—Clerk of Works. Town Clerk, Town Hall.

Near Lincoln.—Clerk of Works.—For New Hospital Clerk, Bracebridge Mental Hospital.

MAY 13.

Barrow-in-Furness.—Clerk of Works.—Town Clerk, Town Hall.

★**Blackpool.**—Clerk of Works. Halstead Best, F.R.I.B.A., 20, Clifton-st.

MAY 16.

★**East Grinstead.**—Clerk of Works, required by the U.D.C. Clerk, Council Offices, London-rd.

MAY 18.

★**Fulham, S.W.6.**—Clerk of Works.—Town Clerk, Town Hall.

Swansea.—(*a*) Quantity Surveyor's Assistant, (*b*) Junior Architectural Assistant. Town Clerk, Guildhall.

JUNE 4.

London, W.1. — Assistant Examiners. — Forthcoming examinations. Assistant examiners in Patent Office. Secretary, Civil Service Commission, Burlington-gardens, London W.1.

L.M.B. Sports Association.

We give below results and table (final) in connection with the Football League of this Association :—

RESULTS, MAY 2.

Trocoll	...	2	Scafco	...	1
Wills	...	8	Elsilrac	...	0

FINAL FOOTBALL TABLE.

	P.	W.	D.	L.	Goals F.	A.	Pts.
Wills	24	20	3	1	110	20	43
Trocoll	24	14	4	6	84	36	32
Scafco	24	15	—	9	47	38	30
Higgs	24	10	5	9	58	48	25
Portland	24	8	6	10	41	50	22
Downs	24	6	3	15	38	83	15
Elsilrac	24	—	1	23	10	111	1

CRICKET RESULTS, MAY 2.

Division "A."

Farmiloes	50	Broadmead	78
Holloways	120	Downs	18
(Bradshaw 34; Baigent 26)		(Collins 5 for 5)	

Division "B."

Parkonian	87	Souwestone	34
(Leach 22)		(Carter 7 for 11)	

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer, E.

Atherstone.—Warwickshire C.C. to acquire land for senior Council school and received approval of B. of E. for extensions to South Junior Council school.

Bakewell.—Reference made by R.D.C. to proposed housing scheme. Offers for sites at Bradwell, Curbar, Hathersage, and Tideswell provisionally accepted.

Banstead.—London C.C. recommend £19,000 for installation of electric lighting at Mental Hospital.

Barnsley.—W. T. Turner, Westville-rd., architect, Royston P.M. Chapel on Midland-rd.

Barnstaple.—R.D.C. passed plans for drill hall at Braunton, for Devon Territorial Army Association.

Bath.—T.C. to invite tenders for extensions to Bear Flat, Wallsway sub-station.—Council to undertake work of extending electricity offices and showrooms and to engage services of W. A. Williams, architect, to prepare plans, and W. E. Underwood as quantity surveyor.—City Engineer to carry out external painting work to 66 houses at Rudmore-pk. and 18 houses at Larkhall.

Birkenhead.—General Hospital is to be improved. Plans been prepared and cost is estimated at £40,000.

Blantyre.—Lanarkshire Council appointed William Dow, 212, Saint Vincent-st., Glasgow, treasurer on Blantyre housing scheme, of which P. Smith, County-bldgs., Hamilton, is architect.

Bolton.—T. E. Smith & Sons, architects, Central-chambers, Folds-rd., architects for shops in Pridge-st., for T. Wild.

Bootle.—E.C. recommend £12,650, for school improvements.

Bradfield.—R.D.C. to purchase land for cottages at Beenham.

Bradford.—Corporation propose 78 houses, White Abbey-rd. district. Cost £25,510.

Bredbury.—U.D.C. to erect 22 houses on Compstall-rd. (architect, W. A. Banks, F.R.I.B.A., 76, Wellington-rd. South, Stockport), and 26 houses on Harrytown estate, to plans by Thorpe & Collier, LL.R.I.B.A., 16, Deansgate, Manchester.

Burgess Hill.—East Sussex E.C. received B. of E. approval to school clinic at Edith House.

Burnley.—B.E. to prepare plans for infants' school at Rose-hill.

Carrington.—R.D.C. to erect 16 houses in Ackers-lane. Architect, H. V. Shaw, Station-bldgs., Altrincham.

Chertsey.—U.D.C. approved:—12 shops at Station-rd., Addlestone, Smith Bros.

Chesterfield.—Plans approved for Chesterfield Royal Hospital include radium room.

Chester-le-Street.—U.D.C. propose houses at Pelton Fell.

Chilvers Coton.—H. N. Jepson, A.R.I.B.A., Queen's-bldgs., Stratford-st., Nuneaton, preparing plans for church hall, between £4,000 and £5,000.

Colchester.—A. D. Robinson, A.R.I.B.A., 56, Cannon-st., London, E.C.4, to prepare plans for infants' school in Barrack-st., and alterations to existing schools in Barrack-st., for E.C.

Coulsdon and Purley.—Plans approved by U.D.C.:—A. G. Gresswell, 32 houses and garages, Ridgemount-av., Coulsdon; James & Woodworth, 3 pairs houses, York-rd., 1 pair houses, York-rd., and 1 detached house, Sundale-rd., Seldsdon; Misses Bourne & Bray, swimming bath and dressing pavilion, Commonwealth Lodge, Purley; Old Lodge Estate (Purley), Ltd., 9 pairs semi-detached and 1 detached house, Old Lodge-lane.

Coventry.—T.C. approved: Cinematograph and variety theatre (amended), Jordan Well, for The Provincial Cinematograph Theatres, Ltd.; 26 houses, Oldfield-rd., I. Colledge; 8 houses, Billing-rd., Hobley Bros.; test house, off Puma-rd., Armstrong, Siddeley Motors, Ltd.; additions to premises, 32 and 34, Holbrook-lane, Thompson & Lissaman; additions to premises, 24 and 26, Holbrook-lane, Warren & Buckingham; 4 houses, Arbury-av., Mr. F. Short; 7 houses and 1 house with shop, Oldfield-rd, J. Bolland; 24 houses, Allesley Old-rd., A. Barratt; factory, off Canley-rd., R. E. D. Grant.

Croydon.—C.B. received M.H. sanction to borrowing £18,975 for Mitcham-rd. cemetery extension lay-out and £7,025 for buildings, also £14,150 for erection of Rockmount school.—Electricity Commissioners sanctioned £6,665 for switchhouse extensions.—Council proposing to acquire 16a and 18, Park-lane.—Land purchased in Beckford-rd. for sub-station.—Plans passed: Holcombe & Betts, 21, Portman-st., W.1, alterations and additions, 8, Chichester-rd.; Borough Electrical Engineer, sub-station, Edge Hill-rd. and Pampisford-rd.; Borough Electrical Engineer, sub-station, Priory-rd.; J. M. Colvin, 9, New-sq., W.C.2, alterations and additions, 83-87, London-rd.; J. Thorman & Co., "Silverleigh," Wharncliffe-gardens, four houses, Birchanger-rd.; H. Macintosh, East Croydon, 289 houses, Mitcham-rd. estate; J. W. Hall & Son, 148, Addiscombe-rd., 24 garages, Davidson-rd.; F. S. and A. Woods, "High Ridd," Ballards Farm-lane, four houses, Ballaris-way; F. M. Burr, 30, Finsbury-sq., E.C.2, alterations and additions, 11, Bank-buildings, Brighton-rd.; H. Williams, 43-45, High-st., alterations and additions and two garages and store, 80, High-st.; W. A. Gardner, 35, Madeira-av., Leigh-on-Sea, mision, "Birdhurse," South Park Hill-rd.; Bethall & Swannell, 16a, John-st., W.C.2, addition to stores, 99, London-rd.

Crigglestone.—Site acquired upon which West Riding E.C. propose senior Council school. Plans by H. Wormald, County Hall, Wakefield.

Derby.—Site comprising 14 acres been acquired upon which it is proposed to build nurses' home and extensions to mental hospital.

Dublin.—Plans approved by Corporation: Mirror Laundry, Dolphin's Barn, extension; Herbertonlane, Crumlin, 4 houses, R. Page; 10, South William-st., rebuilding, W. McEvoy.

Dukinfield.—F. Riley, A.M.S.A. (Messrs. Brameld & Smith), chartered architect, 4, Cannon-st., Manchester, prepared plans of alterations to "Old General Hotel," Crescent-rd. Quantities by T. Sumner Smith, F.S.I., chartered quantity surveyor, The Crescent, Victoria-pk., Manchester.

Durham.—City Council obtained sanction to erect public baths and washhouses. Plans by J. W. Green, City S.

Eastbourne.—T.C. approved: Corporation (architects, Electricity Dept.), underground electric substation, Town Hall; Nicholls & Hickman (architect, W. R. Hamblyn), addition forming warehouse, Longstone-rd. East; Pearl Assurance Co., Ltd. (architect, F. C. Benz), motor showrooms, offices and flats over, Cornfield-rd.

Farnham.—R.D.C. received sanction to borrow £16,375 for houses at Frensham and Ash.

Farnworth.—Lancs E.C. to erect and equip gymnasium at grammar school at £3,964. Plans by Stephen Wilkinson, F.R.I.B.A., 16, Ribblesdale-place, Preston.

Felling.—E.C. propose school at Heworth at £42,300.

Firth.—Plans prepared for public school. Architect, J. Stewart, Albert-st., Motherwell.

Fleetwood.—Additions and alterations to premises, Ash-st. and Warrenhurst-rd., for District Bank, Ltd. Francis, Jones & H. A. Dalrymple, F. & A.R.I.B.A., 178, Oxford-rd., Manchester, architects. Tenders invited.

Gateshead.—E.C. to acquire site in Grant-st. for nursery school.

Gateshead-on-Tyne.—Detailed plans prepared by B.S. for public baths.

Giffnock.—Plans in hand for new Renfrewshire residence. J. Taylor, architect, 220, West Regent-st., Glasgow.

Glasgow.—Plans prepared for commercial college at Pitt-st. Architect, J. Miller, F.R.I.B.A., Blythswood-sq.—Plans to be prepared for extension to Gilscothill, Campbell-st., Maryhill. Architect, R. Ewan, Hope-st.

Glasgow.—Plans prepared for housing schemes by Corporation at Keppochhill-rd., Springburn, Carr-st., and Major-st., and Crownpoint-rd., Bridgeton. R. Horn, F.R.I.B.A., architect, Housing Director's Office, The Cross.—Another large extension to drapery establishments of J. Inglis, Oswald-st. and Argyle-st., Glasgow. Plans by Robert Crawford & Son, architects, 58, Bath-st.

Glossop.—E.C. approved extensions at West End school at £8,700.

Grengairs.—Lanarkshire Council housing scheme at Grengairs being scheduled by Baxter, Dunn & Grey, 243, Saint Vincent-st., Glasgow. Peter Smith, architect, County-bldgs., Hamilton.

Guildford. — Housing Committee recommended site for church on western side Foxburrows-av., Westborough estate, be offered to rector of St. Nicolas, subject to M.H.

Hailsham.—East Sussex E.C. proposing junior school, for provision for about 300 children.

Hamilton.—New J.P. Courts and Offices. Cost £100,000. Architect, P. Smith, County-bldgs., Hamilton.

Hayes.—Approved plans by U.D.C.:—lay-out, southern half, section, 50 houses, Minet estate, for W. Minet; amended lay-out, 46 houses, Grange Farm estate, Taylor, Woodrow, Ltd.; cinema extensions, Regent Cinema, Hayes, Broadmead Cinemas, Ltd.

Hebburn.—E.C. negotiating for site for school to accommodate 800 pupils.

Hornchurch.—Plans approved by U.D.C.:—78 houses, Glanville-drive, Standen Bros.; 4 houses, Station-lane, Standen Bros. & Bown; 8 houses, Highfield-rd., A. E. Johnson; 24 houses, Kenilworth-gardens, A. J. Smith; 5 houses, Kinfauns-av., S. H. Bishop; 5 houses, Bruce-av., W. Belcher; 12 houses, Victor-gardens, H. W. Lacey; 6 houses, Hillview-av., Isbel & Self; 6 houses, Great Gardens-rd., J. R. Woodroffe; 7 houses, Glamis-drive, H. S. Reardon; 6 houses, Westland-av., H. S. Reardon.

Huddersfield.—J. Berry & Sons, Market-walk, architects for licensed premises, junction of Longley and Hall Cross-rds., for Wilson's Brewery Co., Ltd.

Hull.—T.C. approved £125,000 for Beverley Western by-pass, £100,000 for electrical mains and services, £29,793 asphalt programme, £43,000 electrical extensions, £28,000 for electrical supplies to

* See also List of Contracts, Competitions, etc.

rural areas, £15,227 for elementary school north of Endyke-lane, and £15,868 for elementary school at corner of Endyke-lane.

Ilkley.—West Riding C.C. propose new elementary school to provide accommodation for 640 children.

Ipswich.—Governors of school applied to B. of E. for approval to reconstruct school. Cost £17,000.

Keighley.—R.D.C. approved three houses Holme-lane, Sutton, for E. Harrison & Son.

Kidderminster.—Pritchard, Godwin & Clist, F.R.I.B.A., Bank-bldgs., architects for alterations and additions to elementary schools in Bennett-st., for E.C.

Kilmun.—New Argyllshire residence. Ninian McWhannell, architect, 233, West Regent-st., Glasgow.

Lambeth.—B.C. sanctions lavatory accommodation in St. John's recreation ground.

Largs.—Reconstruction and extensions to Boyd-st. premises belonging to Greenock Central Co-operative Society, Ltd., Roxburgh-st., Greenock. J. Mercer, architect, 119, Paisley-rd., Glasgow.—Additional house accommodation and cells at police offices, at £3,500.

Leatherhead.—U.D.C. approved lay-out plan for ten houses Fortyfoot-rd., O. W. Presland.

Leeds.—Office buildings at Sheepscar, for Hirst, Brooke & Hirst, Ltd. Tenders invited. Architect, G. W. Atkinson, St. John's House, Merrion-st.

Lichfield.—T.C. purchasing land for housing.

Liverpool.—Briggs & Thornely, F.R.I.B.A., Royal Liver-bldgs., Pier Head, architects for extensions to school buildings in Shiel-rd., for E.C.

London (Carshalton).—L.C.C. recommend £21,500 for extensions to Queen Mary's Hospital for Children.

London (Chelsea).—L.C.C. recommend £194 for enlargement of dispensary store at St. Stephen's hospital, S.W.3.

London (Deptford).—B.C. recommend £120 for railings at Old Town library.—Plans passed: Garage, 163, Upper Brockley-rd., for Keen, Shingles & Co., 148, Evelyn-st.; building, Church-st., for F. M. Kirby, 226, Tower Bridge-rd., S.E.1.

London (Dulwich).—L.C.C. recommend £675 for improvements to fire escape.

London (Eltham).—L.C.C. recommend £30,250 in respect of widening of Eltham-rd. between "Harrowfield" and Sherard-rd.

London (Hammersmith).—L.C.C. recommend borrowing by B.C. of £16,715 for housing on Southern Improvement site.

London (Holborn).—For borrowing of £53,831 for housing at Boswell-court, L.C.C. have recommended B.C.

London (Lewisham).—B.C. approved: A. Frampton, additional garages, Ashgrove-rd., Bromley; G. S. N. Stone, alterations, 154, High-st., Lewisham, next Romer-place; A. G. Salisbury, building at College of Greyladies, Dartmouth-row, Blackheath; R. Tomei, four houses, Thorpewood-av.; George Palmer & Sons, Ltd., lavatories, etc., to pavilion at sports ground, Whitefoot-lane; C. A. Stanham, partially rebuild and redrain "Princess of Wales" public-house, Montpelier-row; Thomas H. Sawyer & Sons, 30 houses, Cliffview-rd., 16 houses, Fossil-rd., and one house on south-west side of Vicar's hill; W. J. Brise, 20 houses, Road No. 1, Grove-park; H. R. Watt, 10 houses, Callander-rd.; C. J. Bailey, alterations to "Railway Signal" public-house, Devonshire-rd.; W. J. Scudamore, Ltd., 10 houses, Harland-rd.; R. B. Rowell, four houses, Niederwald-rd.

London (Mill Hill).—St. Michael's Church is to be enlarged at £3,000.

London (Poplar).—B.C. recommend application to L.C.C. for sanction to borrowing £1,600 for acquisition of land in Judkin-st. and Roffey-st., Cubitt Town, for housing purposes.

London (Westminster).—City Council recommend £500 for cleaning and painting conveniences.

Maldon.—T.C. received M.H. approval to 12 houses on South House Farm site.—Houses proposed on Mill-rd. site.

Maltby.—U.D.C. to erect 350 houses on Woodlands estate.

Manchester.—The Rusholme Ice Rink Co., Ltd., Rusholme, proposing ice skating rink on Wilmslow-rd. and Cromwell Range, Rusholme. P. Cummings, A.R.I.B.A., architect, 27, King-st., West Manchester.—Co-op. Dental Association, Ltd., Cromford House, Cromford-court, propose conversion of house into a dental surgery, Corporation-st. and Miller-st., Manchester. H. Townley, architect.—Messrs. Elcock & Sutcliffe, FF.R.I.B.A., 60, Strand, London, W.C.2, architects, for reconstruction of Café Royal bldgs. in Peter-st.—District Bank, Ltd., 15, Spring-gardens, to make alterations to 250, Upper Chorlton-rd., West Point. Francis Jones & H. A. Dalrymple, F. & A.R.I.B.A., architects, 178, Oxford-rd.—S. H. Burgess, architect, 110, Cross-st., Sale, prepared plans for additions and alterations to works, Blakeley-rd., and Millbrow, Blackley, for Connolley's (Blackley), Ltd., engineers, Blackley.

Margate.—T.C. approved: Workshops, Laleham-rd., Addington Timber Co.; four houses, Orchard-rd., R. A. W. Noble; alterations, "Ethelbert" hotel, Ethelbert-rd., W. R. H. Gardner.

Meriden.—R.D.C. approved: Eight houses, Hall Walk; Coleshill, F. A. Jacques; 16 houses, Fillongley-lane, Meriden, A. E. Gilks; 11 houses, Elmdon-lane, Marston Green, W. Foster; 8 houses, Brown's lane, Allesley, Gazey Brothers; two houses and shops at corner Common-lane and Church-lane, Sheldon, V. C. S. Beers; pavilion, Three Horse Shoes-lane, Sheldon, Whittaker Ellis, Ltd.

Middlesbrough.—Housing Committee to invite tenders for 100 houses on Corporation's housing estate.

Nantwich.—U.D.C. requested S. to prepare lay-out for 60 additional houses.

Newbury.—R.D.C. proposing 20 houses at Thatcham.

Newmarket.—R.D.C. proposing 12 houses. Sites being considered.

Northampton.—C.B. approved loan of £22,300 for Spencer school, third department, erection and internal fittings; loan of £7,575 for technical college site, levelling of land, etc., and loan of £11,000 for technical college buildings.

Northwich.—Powles & King, F. & A.R.I.B.A., 7, Winnington-st., architects for extensions at Victoria Infirmary.

Otley.—G. L. Clarke, F.R.I.B.A., Permanent-chams., Piece Hall-yard, Bradford, architect for Catholic church on Burley-Menston-rd.

Pateley Bridge.—R.D.C. approved: Wesleyan school at Glasshouses, A. Brocklehurst & Co., architects and surveyors, Manchester; steel garage, F. B. Wood & Co., Wreaks Mill, Birstwith, O. Atkinson & Sons, constructional engineers, Harrogate.

Preston.—M.H. sanctioned borrowing of £5,000 for pavilion in Moor Park.

Reigate.—T.C. approved: Page & Overton, alterations, "Jolly Brickmakers" B.H., Frenches-rd., Redhill; F. Green, seven houses in Crescent-rd., Reigate, for C. Worley; T & G. Smith, additions and alterations to "George and Dragon," in Cromwell-rd., Redhill, for Nalder & Collyer, Ltd.; J. N. Keasley, eight houses in Knighton-rd., Redhill, for C. Tickner & Son.

Rugby.—U.D.C. approved: Gymnasium and sanctuary for St. John's Church, submitted by R. E. Warren Hawksley, on behalf of Rector of Rugby and churchwardens; additional science rooms Rugby Lower School, submitted by W. T. Loveday.

St. Asaph.—R.D.C. approved: Houses in Hylas-lane, Rhuddlan, R. J. Jones; fourteen houses on the Quin San estate, Meliden, T. & J. Hughes; alterations "Bryndinas Hotel," St. Asaph, Worthington.

Sheffield.—E.C. provisionally accepted tender for secondary school at High Storrs, amounting to £95,053.—City Architect prepared plans for school at Hatfield House-lane.—Site acquired for school at Woolley Wood.—It is proposed to build a new laboratory at Jessop Hospital at £600, and new block for maternity cases to accommodate 60 beds.

Shipley.—Council decided to apply to M.H. for sanction to borrow £29,566 for 100 houses at Busy-lane and Carr-lane, Windhill.

Skipton.—U.D.C. approved: Alterations to premises in Keighley-road for Massey's Burnley Breweries, Ltd.; 8 pairs of semi-detached houses Spring-gdns., Russell Bros., Ltd.

Slough.—U.D.C. approved: 18 houses, Bournefield estate, McAll Inskip McAll; 12 houses, Croft Hill estate, Farnham-rd., Mason & Henry, Ltd.; new factory wing, Stoke Poges-lane, Horlicks Malted Milk Co.

South Shields.—Extensions to Harton Dye Works. T. A. Page & Son, architects, 67, King-st.—T. A. Page & Son, 67, King-st., architects, for conversion of premises into dairy for Hindell's Dairies.

South Shields.—T.C. received sanction to borrow £8,130 for land at Tyne Dock for housing. B.E. to prepare plans for three- and four-roomed houses in flats at Farnham and Eggerton-rds.

Spenborough.—U.D.C. to acquire land in Whitehall-rd., Cleckheaton, for senior school. New infants' school to be erected in Headlands-rd., Livesedge, and extension to be made to Millbridge upper school, Fieldhead Field, Liversedge.

Stanley.—Application to M.H. for sanction to 50 houses been made by U.D.C.

Sunderland.—Plans approved for extensions to Poor Law Institution at Highfield, at £3,700, for Public Assistance Committee. Architects, W. & T. R. Milburn, 17, Fawcett-st.

Thornaby.—T.C. propose covered swimming bath and B.E. been instructed to forward plans to Unemployment Grants Committee.

Tynemouth.—T.C. approved:—6 semi-detached houses, Billy Mill-lane, W. Stockdale, for J. S. Hurrell; 18 semi-detached houses, Queensway, J. R. Wallace, for H. D. Burton, Ltd.; Primitive Methodist chapel and school, Hawkey's-lane, W. Stockdale, for Trustees of Chapel.

Wallasey.—E.C. recommended T.C. to make application to M.H. for £26,394, for extensions of Oldershaw school for boys and girls.

Wallasey.—Finance Committee resolved that bowls pavilion be erected in Central Park, Liscard, at £600, and tenders be advertised for.

Wallsend.—It is proposed to make additions to premises of Industrial and Co-operative Wholesale Society at £5,000. Plans by C.W.S. Architects' Department, 90, Westmorland-rd., Newcastle-on-Tyne.

Walthamstow.—T.C. approved: 11 houses and 2 garages, Clifford-rd., A. C. Firmin; 7 houses and 5 garages, Higham Hill-rd., and Hamilton-rd., H. Bridgeman; 7 houses, Manor-rd., Cockett, Henderson & Co.

West Hartlepool.—W. C. Mangan, 18, Guildhall-st., Preston, architect for church hall and new church in parish of St. Cuthbert's, Stratford-rd. Rev. Father J. P. O'Sullivan. Contract not let.

Whitecraigs.—Residence. Architects, Gault & Barr, 59, Bath-st., Glasgow.

Windsor.—T.C. approved: Alterations at 129, Peascod-st., T. Walton (London), Ltd.; Chapel, St. Leonard's-rd., for King Edward VII Hospital; alterations, 16, Peascod-st., for Freeman, Hardy & Willis, Ltd.

Woolwich.—B.C. proposes sub-stations at Plumstead Common-rd. district, and at Halfway-street, New Eltham.

York.—Ward & Leckenby, chartered architects, 9, Museum-st., prepared plans for church in Tang Hall-lane. Cost £12,000.

TRADE NEWS

New Artesian Borehole, Slough.

A borehole drilling contract has just been brought to a successful conclusion at Slough, Bucks, where the contractors, Messrs. Le-Grand, Sutcliff and Gell, Ltd., of Southall, London, have been drilling for some months. The Grand Union Canal Company being desirous of obtaining feed water for the canal at Slough, instructed the company to drill a borehole to tap the almost inexhaustible supplies of water held in the lower greensand formation. After drilling through 1,000 feet of clays, chalk and gault, the lower greensand has been pierced at a depth of 1,017 feet below surface, and a very large supply of water obtained. The borehole, which is lined from the surface to the greensand with over 1,000 feet of 8-in. diameter steel tubing, is yielding a supply of ½ million gallons per day, at a pressure of over 40 lb. per sq. in.; the water overflows at 80 ft. above surface. There is every indication that a very much greater volume would be obtained were the surface valves, at present controlling the supply, fully opened. The fact that the water overflows at the surface means that no pumping plant is necessary to feed the canal—the water merely being allowed to flow direct into the canal from the borehole, always, of course, under the control of the surface valves. This means that a copious supply of water is being obtained at no cost whatever, apart from the capital expenditure involved in drilling the borehole. Once again it is demonstrated that supplies of excellent water may be obtained cheaply from underground sources.

Architects' Orders.

When one realises that building material and fittings to the value of something like £300,000,000 are ordered each year by the architects of the United Kingdom it is obvious that they form a most important market to be cultivated by the British manufacturer. We are informed that leading architects all over the country have written to the Monomark Company expressing the hope that manufacturers of British goods (to which the scheme is restricted) will identify their products by this means. An architect is charged with the work of carrying out extensions to a building. Material and fittings to be matched are inspected for marks of identification. Quite frequently there is no mark at all, or relatively meaningless ciphers, or unknown brands appear which present enormous difficulty in tracing and often involve special manufacture. When the materials are Monomarked it is only necessary for the architect to copy the Monomark on to an envelope and post it in the ordinary way, and his inquiry reaches the maker unopened and without delay. The Monomark may consist of brand name, the initials of the firm, or any other available combination of alphabetical or numerical characters preferred. Registered at Monomark House, and preceded by the initials BCM/, this becomes your Monomark. This point appeals particularly to the many architects who object so strongly to makers affixing conspicuous name-plates on their products. Monomarks are already being used extensively in the building trade with very satisfactory results, and manufacturers and merchants of British-made goods can test the system in operation by writing to BCM/MONO London, W.C.1—the Monomark of the Monomark Company—for all details.

"Shutters in Industry."

A brochure issued under this title by Messrs. Haskins is, we learn, the first of what is to be a quarterly review which will trace the increasing industrial use of shutters. Messrs. Haskins specialise in the "Giant Lath" shutter and the "Rolador" heavy section steel shutter, and the description of the firm's new factory at Walthamstow—with illustrations of the various uses to which these shutters have been put—help to make a bright first number. A copy can be obtained from St. John-street, Clerkenwell, E.C.1.

PRICES CURRENT OF MATERIALS.*

Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 11 3	Best Blue Pressed Staffs	0 5 0
Do., grooved for Plaster	2 13 3	Bo. Bullnose	9 15 0
Do., Bullnose	3 5 3	Blue Wire Cuts	7 5 0
White Midhurst Facing Bricks (delivered London site)	5 0 0		

Best Stourbridge Fire Brick:—

2½ in.	8 11 0	3 in.	10 3 0

GLAZED BRICKS—

Best White Ivory and Salt Glazed Stretcher	21 0 0	D'ble Str'tch'rs	29 10 0
		D'ble Headers	26 10 0
		One Side and two Ends	30 10 0
		Two Sides and one End	31 10 0
		Splays, and Squints	28 0 0
Headers	20 10 0		
Quoins, Bullnose and 4½ in.			
Flats	27 10 0		

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	1 11	3 in. per yd. super	2 9
2½ in. „ „	2 4	4 in. „	3 6

	s. d.	
Thames Ballast	8 0	per yd
Pit Sand	11 0	„ „
Thames Sand	11 0	„ „
Best Washed Sand	11 6	„ „
½ in. Shingle for Ferro-Concrete	8 6	„ „
¼ in.	11 0	„ „
¼ in. Broken Brick	10 6	„ „
Pan Breeze	8 0	„ „

delivered 2 miles radius Paddington

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification. Test £2 6 0 to £2 8 0

39s. alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0 7 6
Vitocrete „ „	0 7 6
Super Cement (Waterproof)	3 16 0
Ciment Fondu (F.O.R. Works)	4 15 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 0
„ Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	1 17 6
Hair per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s 6d. if returned in good condition within three months carr. pd.

Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube ..... s. d. 2 10

BEER STONE—RANDOM BLOCK—

Free on rail at Seaton Station per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. per ft. cube	3 1½

Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.

PORTLAND STONE—

Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube 4 4½

Do. do. delivered on road wagons at above stations, per ft. cube 4 5½

White basebed, 3d. per ft. cube extra.

NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

CHILMARK—RANDOM BLOCK—

At Nine Elms, per ft. cube	3 11

HOPTON-WOOD STONE—

	s. d.
F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over P. ft. cb.	14 0
Sawn two sides „	22 6
Sawn three or four sides „	27 6

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station, London

6 in. sawn two sides landings to sizes (under 30 ft. super) Per ft. super	5 6
6 in. rubbed two sides, ditto „	6 0
3 in. sawn two sides slabs (random sizes) „	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 6½
1½ in. to 2 in. ditto, ditto „	1 3½

HARD YORK—

Delivered at any Goods Station, London.

Scappled random blocks Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) Per ft. super	5 1½
6 in. rubbed two sides, ditto „	6 1½
¾ in. sawn two sides slabs (random sizes) „	2 1½
3 in. ditto ditto „	2 10
2 in. self-faced random flags Per yd. super	8 0

CAST STONE

Delivered in London area in full van loads, per ft. cube: Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills, 10s. 0d

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£27 10	3 × 6	£20 0
4 × 9	26 0	3 × 11	22 0
4 × 8	25 0	2 × 11	23 0
4 × 7	23 0	3 × 9	22 0
3 × 8	20 0	2½ × 9	22 0
3 × 7	20 0	3 × 4½	20 0
2½ × 7	20 0	3 × 4	20 0

PLANED BOARDS.

1 × 11	£24 0	1 × 9	£26 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	18/-	1¼	29/-
⅞	20/-	1½	33/-
1	23/-		

TONGUED AND GROOVED FLOORING

Inches.	per sq.
1	24/-
1¼	30/-
1½	34/-

Ins. BATTENS.	s. d
¾ × 2 per 100 ft.	2 6

MATCHING (BEST).

Inches.	per sq.
⅝	16/6
¾	19/-
1	24/-

SAWN LATHS.	s. d.
Per bundle	2 0

1 INCH AND UP THICK.

	Average price for prime quality.	£ s. d.
Dry Austrian Wainscot, per ft. cubs		0 15 0
Dry American and/or Japanese Figured Oak, per ft. cube		0 12 0
Dry American and/or Japanese plain Oak, per ft. cube		0 10 0
Dry sq. edged Honduras Mahogany, per ft. cube		0 14 0
Dry log-cut Honduras Mahogany, per ft. cube		0 16 0
Dry Cuba Mahogany, per ft. cube		1 1 0
Dry Teak, per ft. cube		0 14 0
Dry American Whitewood, per ft. cube		0 10 0
Best Scotch Glue, per cwt.		£4 10 0 to —
Liquid Glue, per cwt.		4 7 0 to 5 10 0

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	31 0 0	18 by 10	17 5 0
22 by 12	27 19 6	18 by 9	15 10 0
22 by 11	25 5 0	16 by 10	14 14 6
20 by 12	24 7 6	16 by 8	11 5 0
20 by 10	20 17 6		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons. Per 1,000. f.o.r. London.

Best machine-made tiles from Broseley or Staffordshire district		£5 2 6
ditto hand-made ditto		5 7 6
Ornamental ditto		5 12 6
Hip and valley tiles (per dozen)	Hand-made	0 9 6
	Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

R.S. Joists, cut and fitted	£12 10 0
Plain Compound Girders	14 10 0
„ „ Stanchions	16 10 0
In Roof Work	19 10 0

MILD STEEL ROUNDS.—To London Station, per ton

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	12 0 0	⅝ in. to ⅞ in.	10 15 0
⅜ in.	11 0 0	1 in. to 2¾ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Tubes. Wrought Mild Steel.	Tubes. Genuine Staffs. Iron.	Fittings. ½ in. and under.	Fittings. Over ½ in.	Flanges. ½ in. and under.	Flanges. Over ½ in.
	%	%	%	%	%	%
Gas	62½	50	45	47½	55	57½
Water	58¾	46¼	40	42½	50	52½
Steam	55	42½	35	37½	45	47½
Galv. gas	50	37½	35	37½	45	47½
Galv. water	45	32½	30	32½	40	42½
Galv. steam	40	27½	25	27½	35	37½

*C.I.—HALF-ROUND GUTTERS—London Prices ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	10d.	7½d.	2½d.
3½ in.	10½d.	8½d.	2½d.
4 in.	10⅝d.	9½d.	2½d.
4½ in.	11⅛d.	10⅝d.	2⅝d.
5 in.	1/1½	11⅛d.	3½d.

*O.G. GUTTERS.

3 in.	1/0	10½d.	2½d.
3½ in.	1/0⅝	10½d.	2½d.
4 in.	1/1½	10⅝d.	2½d.
4½ in.	1/2⅛	1/0½	2⅝d.
5 in.	1/5	1/2⅛	3½d.

*RAIN-WATER PIPES, &c.

Per yd. in 6 ft. Pipe.		Bends, stock Branches, angles, stock angles.
2 in. plain	1/2¼	9½d. 1/2
2½ in. „	1/3	10½d. 1/4
3 in. „	1/6¼	1/1½ 1/8½
3½ in. „	1/11	1/4½ 1/11½
4 in. „	2/2½	1/7½ 2/4½

*The above R.W. Goods prices are subject to an advance of 5% from October 29th, 1929.

L.C.C. COATED SOIL PIPES—London Prices ex Works.

	Bends, stock Branches, Pipe, angles, stock angles.					
	s. d.		s. d.		s. d.	
2 in. per yd. in 6 fts. plain	2	1½	1	6½	1	10½
2½ in. „	2	6	1	8½	2	4
3 in. „	2	8	1	10½	2	9½
3½ in. „	2	10½	2	4	3	3
4 in. „	3	3	2	7½	3	9

L.C.C. COATED DRAIN PIPES—London Prices ex Works

	Bends, stock Branches, Pipe, angles, stock angles.					
	s. d.		s. d.		s. d.	
3 in. per yd. in 9ft. lengths	3	6	4	3	6	8
cwt. qr. lbs.						
4 in. „	1	1 20	4	9	5	2 8 10
5 in. „	1	2 22	6	3	9	0 14 3
6 in. „	2	0 6	6	11	10	11 18 1

Gaskin for jointing 41/- per cwt.

	Per ton in London. £ s. d.		£ s. d.
IRON— Common bars	11 0 0	to	12 0 0
Staffordshire Crown Bars Good merchant quality	11 5 0	to	12 5 0
Staffordshire Market Bars	14 0 0	...	15 0 0
Mild Steel Bars	9 10 0	...	10 10 0
Steel Bars, Ferro-Concrete quality, basis price	9 0 0	...	10 0 0
Hoop iron, basis price	11 0 0	...	12 0 0
„ Galvanised	27 0 0	...	28 0 0
Soft Steel Sheets, Black— Ordinary sizes, to 20 g.	11 10 0	...	12 0 0
„ „ „ 24 g.	13 0 0	...	14 0 0
„ „ „ 26 g.	15 0 0	...	16 0 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	14 10 0	...	15 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	15 10 0	...	16 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	18 10 0	...	19 5 0
No. 1 quality £4 per ton extra.			
Flat and Galvanised Corrugated Sheets— Ordinary sizes 6 ft. to 9 ft. to 20 g.	15 0 0	...	16 0 0
Ordinary sizes 6 ft. to 9 ft. to 22 g. and 24 g.	15 10 0	...	16 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	18 10 0	...	19 10 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	20 10 0	...	21 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	22 10 0	...	24 10 0
Best Soft Steel Sheets, 26 g.	24 0 0	...	25 0 0
Cut Nails, 3 in. to 6 in. (Under 3 in. usual trade extras.)	16 0 0	...	17 0 0

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	20 10 0
Pipe in coils	21 0 0
Soil pipe	24 0 0
Compo pipe	25 0 0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 5s. cwt. extra.

Old lead, ex London area, at Mills per ton	£10 10 0

COPPER.

		s. d.
Seamless Copper tubes (basis)	per lb.	1 3
Strong sheet	„	1 0
Thin	„	1 1
Copper nails	„	1 7
Copper wire	„	1 4

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
29/- 45/- 76/- 153/- 246/- 510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
41/6 62/- 92/- 174/- 300/- 588/- per doz

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in. ¾ in. 1 in.
39/6 60/- 116/6 per doz.

CAPS AND SCREWS.

1¼ in. 1½ in. 2 in. 3 in. 3½ in. 4 in.
7/6 10/- 14/- 23/- 30/- 42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
7/6 11/- 17/- 29/- 36/- 63/- per doz.

BRASS SLEEVES.

1¼ in. 2 in. 3 in. 3½ in. 4 in.
10/- 12/- 20/- 24/- 31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in. ¾ in. 1 in. 1¼ in. 1½ in.
35/- 56/- 98/- 162/- 228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1¼ in. 1½ in. 2 in. 3 in.
8 lbs. P. traps ... 33/- 41/- 56/- 101/- per doz.
8 lbs. S. traps ... 35/- 45/- 66/- 126/- „

TIN.—English Ingots, 1/4 per lb. SOLDER.—Plumber's 8d., Tinmen's 9d., Blowpipe 10d. per lb.

PAINTS, &c

			s. d.
Raw Linseed Oil, in pipes	per gallon	...	0 2 1
„ „ „ in barrels	„	...	0 2 3
„ „ „ in drums	„	...	0 2 6
Boiled „ „ in barrels	„	...	0 2 6
„ „ „ in drums	„	...	0 2 8
Turpentine in barrels		...	0 4 0
„ in drums (10 galls.)	„	...	0 4 2
Genuine Ground English White Lead, per ton (In not less than 5-cwt. casks.)			45 10 0

Extra for 1-cwt. kegs over 5-cwt. casks is 5/0 cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(*cont.*)

PAINTS, &c.—(*cont.*)

		£	s.	d.
GENUINE WHITE LEAD PAINT. "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5 cwt. lots	per ton delivered	63	10	0
Red Lead, Dry (packages extra)	per ton	31	10	0
Best Linseed Oil Putty	per cwt.	0	13	6
Filicol	,,	0	16	6
Size. XD quality	fkn.	0	3	0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per ft.		Per ft.
15 oz. fourths	2½d.	32 oz. fourths	6½d.
15 ,, thirds	3½d.	32 ,, thirds	9d.
21 ,, fourths	3½d.	Obscured Sheet, 15 oz.	3½d
21 ,, thirds	4d.	,, ,, 21 oz.	4½d.
26 ,, fourths	4½d.	Fluted, 15 oz. 7d., 21 oz.	9½d.
26 ,, thirds	6½d.	Em'lled, 15 oz. 4½d., 21 oz.	6d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
⅛ Rolled plate	4½d.
⅜ Rough rolled	5½d.
½ Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White	5½d.
Ditto, tinted	8d.
Rolled Sheet	4½d.
White Rolled Cathedral	4½d.
Tinted do.	6½d.

Cast plate is same price as rough rolled.

"VITA" GLASS.	Per foot. s.	d.
Clear sheet—not exceeding 1 foot	1	0
Do. do. 2 feet	1	3
Do. over 2 feet	1	9
Polished plate—not exceeding 1 foot	1	6
Do. not exceeding 2 feet	3	0
Cathedral—not exceeding 1 foot	1	0
Do. larger sizes	1	6
Horticultural—for greenhouses, etc. Sizes up to 24 inches by 18 inches or not exceeding 3 feet	1	0
3/16 in. Wired Georgian Design. Sizes up to 108 inches long by up to 24 inches wide	2	6

VARNISHES, &c.		Per Gallon. £	s.	d
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Opal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	6
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting	ditto	1	0	0
Hard Drying Oak	ditto	0	18	0
Fine Hard Drying Oak	ditto	0	19	6
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	12	6
Best ditto	ditto	1	2	6
Best Japan Gold Size		0	12	0
Best Black Japan		0	10	0
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black		0	7	0
Berlin Black		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebene		0	9	0
Culrass Black Enamel		0	7	0

Thermal Storage Cylinder.

Messrs. Lumbys, Ltd., of Greetland Boiler Works, Halifax, send us details of the "Super Hot" gas-heated thermal storage cylinder—designed to give a good supply of hot water with a low gas consumption. These water heaters, which are constructed throughout from copper, cannot, so we are informed, burn more than 10 cub. ft. of gas per hour, and as soon as the temperature of the water reaches about 140 deg., the gas is automatically cut down to by-pass, allowing sufficient gas to be burned to keep the water in the cylinder hot. The loss of heat from the water is negligible, due to a method of insulating the body of the vessel, and the water keeps hot after gas is shut off. After lighting the gas there is nothing further to be done, as the heater is automatically governed and decreases or increases the supply of gas according to the water drawn off. The makers state that the maximum gas consumption is never more than 10 cub. ft. per hour. The bypass gas consumption is from 1 to 2 cub. ft. per hour. Each heater is tested on completion for 50 ft. head pressure.

THE SCOTTISH BUILDER

NEW BUILDINGS

Aberdeenshire. — SCHOOLS. — The Works Committee of Aberdeen County Council has agreed to recommend the erection of four new schools.

Dundee.—BUILDINGS.—Plans and sections of the following proposed new buildings, etc., have been lodged at the Office of the City Engineer:—Craigie-avenue (off)—house for Mr. C. N. Thomson (Mr. W. M. Wilson, architect, 61, Meadowside); Murraygate—alterations for the Invalid and Cripple Children's Aid Association (Mr. James Findlay, architect, 33, Albert-square); South Tay-street—alterations for Mr. John Binnil (Messrs. Gauldie, Hardie & Sharpe, architects, 26, Commercial-street).

Edinburgh. — BUNGALOWS. — The Dean of Guild Court has passed the following:—Commercial Bank of Scotland, Ltd.—alterations at 52, Minto-street; Hepburn Bros.—12 houses at Hillview-crescent and road, Corstorphine; G. Robertson, 39, House o' Hill-avenue, Blackhall—six houses at Corbiehill-avenue, Blackhall; James Miller — five garages at Craigleith Hill-crescent; J. Miller—four bungalows at Craigleith-drive.

Glasgow.—BUILDING.—The Dean of Guild Court has approved several housing schemes, including the one at Cottar-street, Maryhill, involving the erection of 102 three-apartment houses and 24 four-apartment houses, all of the three-story tenement type. In Mile End the schemes sanctioned were tenement replacements of demolished dwellings—12 two-apartment and 6 three-apartment houses in Orr-street and Major-street; 12 houses at Crownpoint-road; and 18 three-apartment houses in Soho-street. Other municipal housing schemes for which linings were granted were:—6 two-apartment houses and 6 three-apartment houses at Stewart-street and Dunblane-street, Cowcaddens. The Court approved of the plans of a church and offices which the Church of Scotland Presbytery of Glasgow proposed to erect on Carntyne housing scheme. Other applications were:—J. Craig (Glasgow), Ltd., 10, Woodlands-road—alterations to premises at 7, Gordon-street; Scottish Co-operative Wholesale Society — alterations and additions to premises in Maxwell-road at Renfrew-road; Corporation—annexe to St. John's R.C. school at Dale-street, South Side; Royal Samaritan Hospital for Women—additions to nurses' recreation hall and hospital at Butterbiggins-road, Victoria-road, and Coplaw-road.

SCOTTISH BUILDERS' WAGES.

An agreement has been reached on April 23, at a meeting in Glasgow of the Scottish National Joint Council, by which the employers have compromised by confining their demands for a wage reduction to Glasgow and the West of Scotland, where more than the standard rate was being paid, and agreeing to a rate of 1s. 7d. for all grade "A" towns in Scotland until the end of January next, when wages will be reviewed along cost-of-living lines.

BUILDING TRADE WAGES IN SCOTLAND*

The following are the present rate of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons'‡ Bricklayers'† Plasterers'.†
Aberdeen	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Arbroath	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Ayrshire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2 1/3
Berwickshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/7	†1/2½
Broughty Ferry	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Clackmannanshire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Dumbartonshire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Dumfries	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Dumfriesshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Dunoon	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
East Lothian	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Edinburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Forfarshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Fort William	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/2
Galashiels	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Glasgow	1/7½	1/8	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Hamilton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	‡1/2½ †1/2½
Hawick	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Inverness	1/5	1/5	1/5	1/5	1/5	1/5	1/5	10d.-1/2
Inverurie	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/7	1/2
Kilmarnock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Kincardineshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Kinross-shire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Kirkwall	1/5	1/5	1/5	1/6	1/5	1/5	1/7	1/-
Lanarkshire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Midlothian	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Motherwell	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	‡1/2½ †1/2½
Peeblesshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Perthshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Peterhead	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/7	1/2
Renfrewshire	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Rothesay	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Roxburghshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
St. Andrew's	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Selkirkshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/7	‡1/2½ †1/2½
Stirlingshire, West	1/6	1/6	1/6	1/6	1/6	1/6	1/7	1/1
Stornoway	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/2
West Lothian	1/7	1/7	1/7	1/8	1/7	1/7	1/7	1/2½
Wishaw	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	‡1/2½ †1/2½

* The information given in this table is copyright. The rates of wages in various towns in England and Wales are given on page 857.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	9	9
Add if in clay	,, ,,	1	0
Add for every additional depth of 6 ft.	,, ,,	0	6
Planking and strutting to trenches	per foot super	0	4
Do. to sides of excavation, including shoring	,, ,,	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	30	0
Add if in underpinning in short lengths	,, ,,	6	0
Add if in floors 6 in. thick	,, ,,	2	6
Add if in beams	,, ,,	3	0
Add if aggregate 1 : 2 : 4	,, ,,	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	,,	2	0

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	,,	7	10	0
Add if in Staffordshire blues	,,	22	0	0
Add if in Portland cement and sand	,,	1	5	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	,, ,,	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	,, ,,	0	0	10
Fixed in stocks	,, ,,	0	1	9
Rubbed and gauged jointed in putty camber or segmental	,, ,,	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	,, ,,	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	,,	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	,, ,,	9	6
Three-quarter-inch on flats in two thicknesses	,, ,,	6	0
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	,, ,,	1	0

MASON.

York stone templates fixed	per foot cube	13	0
York stone sills fixed	,, ,,	22	0
Bath stone and all labour fixed	,, ,,	10	6
Beer stone and all labour fixed	,, ,,	15	0
Portland stone fixed	,, ,,	20	0
Chilmark stone fixed complete	,, ,,	17	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	,,	80	9
Do. 24 in. × 12 in. Do. Do.	,,	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	4	6
Do. joists	,, ,,	5	0
Do. roofs, floors and partitions	,, ,,	5	6
Do. trusses	,, ,,	8	6

		¾″	1″	1¼″	2″
Deal rough close boarding	per sq.	33/6	38/-	43/-	70/-

Flat centering for concrete floor, including struts or hangers	,,	50	0
Do. to beams	per ft. sup.	0	9
Centre for arches	,,	1	6
Gutter boards and bearers	,,	1	0

FLOORING.

		¾″	1″	1¼″	1½″
Deal-edges shot	per sq.	—	42/6	50/-	57/6
Do. tongued and grooved	,,	—	47/-	56/-	64/-
Do. matchings	,,	44/-	49/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	,, ,,	2	1
Add for fitting and fixing	,, ,,	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights : average size	,,	3	9

DOORS

		1½″	1¾″	2″
Two-panel square framed	per ft. sup.	2/1	2/3	2/5
Four-panel Do.	,,	2/4	2/6	2/9
Two-panel moulded both sides	,,	2/6	2/9	2/11
Four-panel Do. Do.	,,	2/9	2/11	3/2

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1″	1¼″	1½″
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	,,	1/4	1/6	1/9
Add if cross-tongued	,,	2d.	2d.	2d.

STAIRCASES.

	1″	1¼″	1½″	2″	2½″
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail : average, 3 in. × 3 in.	,, ,,	6	0
Add if ramped	,, ,,	12	0
Add if wreathed	,, ,,	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	,,	19	0
Do. stanchions	,,	21	9
In roofwork	,,	27	6

RAIN-WATER GOODS.

		3″	4″	5″	6″
Half-round plain rebated joints	ft. run	1/4	1/7	1/9	2/-
Ogee Do. Do.	,,	1/6	1/9	2/3	2/9
Rain-water pipes with ears	,,	1/6	2/4	—	—
Extra for shoes and bends	each	3/4	4/11	—	—
Do. stopped ends	,,	1/6	1/10	2/9	3/3
Do. nozzles for inlets	,,	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	42	0
Do. Do. in flats	,,	41	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	,, ,,	1	3
Copper nailing	,, ,,	0	3

		½″	¾″	1″	1½″	2″	4″
Drawn lead waste	per ft. run	1/1	1/7	1/10	3/-	3/6	—
Do. service	,,	1/6	2/-	2/5	3/6	—	—
Do. soil	,,	—	—	—	—	—	6/-
Bends in lead pipe	each	—	—	—	—	3/-	6/6
Soldered stop ends	,,	1/-	1/4	1/9	2/6	3/2	—
Red lead joints	,,	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	,,	2/6	3/-	3/6	4/4	5/6	7/9
Lead traps and cleaning screws	,,	—	—	—	12/7	17/6	—
Bib cocks and joints	,,	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	,,	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	5
Do. Do. Sirapite	,, ,,	2	8
Do. Do. Keen's	,, ,,	3	10
Add saw lathing	,, ,,	1	7
Add metal lathing	,, ,,	2	6
(Not including hangers or runners, etc. for suspended ceilings.)			
Portland cement screed	,, ,,	2	2
Do. plain face	,, ,,	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	3

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	8½
26-oz. Do.	,, ,,	1	0
Obscured sheet	,, ,,	1	1
⅛-in. rolled plate	,, ,,	0	9
¼-in. rough rolled or cast plate	,, ,,	0	10½
¼-in. wired cast plate	,, ,,	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	,, ,,	0	7
Plain painting, 1 coat	,, ,,	0	9
Do. 2 coats	,, ,,	1	2
Do. 3 coats	,, ,,	1	9
Do. 4 coats	,, ,,	2	4
Graining	,, ,,	2	3
Varnishing twice	,, ,,	1	9
Sizing	,, ,,	0	3
Flatting	,, ,,	0	7
Enamel	,, ,,	1	1
Wax polishing	per foot sup	0	6
French polishing	,, ,,	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

*These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modifications.*
¶ Denotes *accepted by H.M. Office of Works and H.M. War Office.*

Alnwick.—Sewage settling tank at the Western Sewer at Christon Bank, for the U.D.C. Mr. J. T. Robson, surveyor:—
*W. Steen, Howick, Northumberland.

Antrim.—Additions and alterations to the Masonic hall. Mr. J. St. John Phillips, architect, 16, Donegall-square South, Belfast:—
*Isaac Copeland & Sons, Lower Windsor-avenue, Belfast.

Armley.—Shop premises with frontage to Stanningley-road, for Messrs. Stanleys, Ltd. Mr. W. Dawson, architect, Leeds:—
*S. Flockton.

Ashby-de-la-Zouch.—101 non-parlour type houses, for the R.D.C. Mr. J. P. Cook, Housing Architect, Council Offices:—

	Per house.
Oakthorpe site (28 houses)—	
*F. Perks & Son, Ltd., Long Eaton ...	324 10
Thringstone site (30 houses)—	
*F. Perks & Son, Ltd., Long Eaton ...	313 0
Swannington site (28 houses)—	
*J. G. Lidwell & Son, Swannington, Leicester ...	287 6
Ravenstone site (15 houses)—	
*J. G. Lidwell & Son, Swannington, Leicester ...	291 5

Athlone.—28 houses in concrete at "The Batteries," for the U.D.C.:—

Ennis Bros., Mullingar ...	£10,879
J. J. Murphy, Athlone ...	10,733
Concannon & Sons, Athlone ...	10,335
P Nolan, Athlone ...	10,240
*T. Kennedy, Galway ...	9,972

Barnsley.—New greenhouse at Locke-park, for the C.B.:—
Superstructure—*W. Dunk and Sons £203 3 8

Barnsley.—Repairs to the old board room at Monk Bretton, for the C.B.:—
*W. Dunk & Sons ... £178 10

Barnsley.—Terrazzo paving and partitions to the ladies' slipper baths, for the C.B.:—
*Diespeker & Co., Ltd., London ... £327 4 6

Battle, Sussex.—For an additional sanitary block, alterations, plastering, etc., to Battle Institution, for the East Sussex C.C. Mr. E. A. Verger, County Architect, 173, High-street, Lewes:—
*A. E. Goodsell, 25, Lennox-street, Hastings ... £932 10 3

Barrow-in-Furness.—Rebuilding the "Britannia Inn" public house, Church-street, for Messrs. Truman, Hanbury, Buxton & Co., brewers, Derby-street, Burton-on-Trent. Mr. Henry T. Fowler, A.R.I.B.A., architect, 6, Cornwallis-street:—
*J. Turner, 54, Park-drive, Barrow-on-Furness.

Belfast.—Installation of low-pressure gravity hot water heating system in new P.E. school, Conlig-street, for the E.C. Mr. R. S. Wilshere, A.R.I.B.A., architect:—
*Wm. Willis & Co., Dublin-road, Belfast £726

Birmingham.—Alterations and additions to City-road senior girls' and junior and infants' Council school, for the E.C.:—
Building work—
*Wm. Bishop, Birmingham ... £4,265
Heating—
*The Brightside Foundry and Engineering Co., Ltd., 17, Summer-row, Birmingham ... 135
Lighting—
*Reynolds & Bradwell, Birmingham ... 107

Blackpool.—Rebuilding scheme at the Trocadero Hotel and Restaurant, Central Promenade, for the Board of Directors. Mr. Halstead Best, F.R.I.B.A., architect, 20, Clifton-street:—
*Sir Lindsay Parkinson & Co., Ltd., Blackpool.

Bollington.—36 houses on Bollington Cross housing site for the U.D.C. Messrs. Whittaker & Bradburn, architects, 25, King Edward-street, Macclesfield:—
*Willis & Co., Stockport.

Bolton.—Eight shops in two blocks and six houses in three blocks at Hall-i'-th'-Wood, for the C.B. Mr. C. H. Walker, F.S.I., Housing Director, Westminster Bank-chambers, Old Hall-street North. Specifications and plans by the Housing Director:—
*Wm. Townson & Sons, Ltd., Park Hill-street, Bolton ... £6,735

Bolton.—Reconstruction of one pair of steel houses on Union-road estate, for the C.B. Mr. Cyril H. Walker, F.S.I., Housing Director, Westminster Bank-chambers, Old Hall-street North. Specifications and plans by the Housing Director:—
*Leigh Bros., Ltd., Bark-street, Bolton £380

Boston.—28 houses in the parish of Wyberton, 6 in the parish of Wrangle, and 2 in the parish of Frampton, for the R.D.C. Mr. A. Barton, architect and surveyor, Market-place:—
7 *pairs, Wyberton*—*A. H. & T. Leafe, Boston.
7 *pairs, Wyberton*—*C. T. Pickering, Boston.
3 *pairs, Wrangle*—*J. W. Greetham, Skegness.
1 *pair, Frampton*—*A. Cade, Boston.

Bradfield.—Three pairs of bungalows at Burghfield Common, for the R.D.C.:—
*H. D. Higgs & Son ... £1,681

Bradfield.—Two pairs of cottages at Lamb Field, Theale, for the R.D.C.:—
*E. C. R. Wigmore, Theale ... £1,732 10

Brighouse.—Tarspraying on county main and corporation roads, for the T.C. Mr. S. S. Haywood, Borough Engineer and Surveyor:—
*W. & J. Glossop, Ltd., Osbaldwick, York.

Bundoran.—Public lavatories at the Park, for the U.D.C.:—
*E. Travers, Bundoran ... £587

Bury.—Club premises, back Knowsley-street, Bury, for Bury and District Railway Men's Social Club. Mr. Arthur Brocklehurst, F.R.I.B.A., architect, Derby-chambers, 6, Fleet-street, Bury:—
*Ecckersall & Manners, Bury.

Cavan.—Reconstruction of Virginia Courthouse, for the C.C.:—

P. Mulholland & Sons, Carrickmacross ...	£1,451 15
P. O'Reilly, Moynalty ...	1,247 0
T. Reynolds, Mohill ...	1,230 0
*J. J. Smith, Mullamagavan ...	1,216 0

Caxton and Arrington.—2 houses at Bourn, 3 at Eltisley, and 6 at Toft, for the R.D.C. Mr. C. W Smith, architect, 4, Regent-street, Cambridge:—
Bourn—
*Sidney Gauge, Bourn, Cambs ... £670
Eltisley—
*Hale & Son, Sutton, Ely ... 970
Toft—
*A. G. Warboys, Comberton, Cambs ... 1,941

Cheltenham.—Five 3-bedroom houses on the Folly-lane site, for the T.C.:—
*Wheeler & Mansell ... £1,718

Chesterfield.—Eleven coal-sheds and five lavatories at Pottery-lane depot, for the T.C.:—
*G. Sims, Chesterfield ... £153 12 8

Chipping Norton.—Two pairs of parlour-type cottages in Enstone, for the R.D.C. Mr. S. P. Bendle, surveyor, Enstone-road, Charlbury:—
†Warr & Taylor, Little Tew ... £1,620

Clare.—Cottages, for the R.D.C. Mr. H. B. Thake, architect, 10, High-street, Haverhill:—

	Parlour type, including site works.
Parish of Denston (1 pair)—	
F. J. Pettingale, Stansfield ...	£864 6 6
H. J. Kidd, Gazeley ...	838 0 0
*Mason & Son, Haverhill ...	825 0 0
Parish of Hundon (4 pairs)—	
E. G. French, Birdbrook ...	3,680 0 0
Bareham & Cowle, Clare ...	3,116 0 0
Mason & Son ...	3,150 0 0
*Martin & Sons, Clare ...	2,996 16 0
Parish of Kedington (3 pairs)—	
E. G. French ...	2,580 0 0
*Mason & Son ...	2,280 0 0
Parish of Stoke (3 pairs)—	
E. G. French ...	2,729 0 0
Mason & Son ...	2,400 0 0
Bareham & Cowle ...	2,301 0 0
*Martin & Sons ...	2,208 0 0
Parish of Wickhambrook, Clopton Hall site (4 pairs)—	
E. G. French ...	3,472 0 0
F. J. Pettingale ...	3,331 10 0
H. J. Kidd ...	3,260 0 0
A. Bailey & Sons, Wickhambrook ...	3,159 0 0
*Mason & Son ...	3,120 0 0
Parish of Wickhambrook, Thorns site (2 pairs)—	
E. G. French ...	1,816 0 0
F. J. Pettingale ...	1,700 0 0
H. J. Kidd ...	1,656 0 0
*Mason & Son ...	1,500 0 0
A. Bailey & Sons ...	1,570 0 0

Coatbridge.—New advanced division school, for the C.C.:—Mr. John Stewart, architect, Master of Works' Office, Albert-street, Motherwell:—
Digger, mason, brick work, etc.—*Lindop & Inglis, Calder-street, Coatbridge.
Carpentry, joiner, etc., work—*W. Bain and Co., Ltd., Coatbridge.
Plaster, etc., work—*Wilson & Hendry, 35, Portland-street, Hamilton.
Plumber, etc., work—*McCulloch & Griffen, 45, Rose-street, Glasgow.
Glazier work—*A. S. Wright & Co., Ltd., 12, Dorset-street, Glasgow.
Plaster and cement work—*J. Bertram & Son, 20, Melville-street, Motherwell.
Tile and terrazo work—*Galbraith & Winton, 121, Douglas-street, Glasgow.
Asphalt work—*Limmer & Trinidad Lake Asphalt Co., Ltd., 45, Hope-street, Glasgow.
Iron railings and gates—*David Kirkwood, Motherwell.
Steel casements—*Crittall Manufacturing Co. 26, Royal Exchange-square, Glasgow.

Creagh.—New church:—
*Owen Larkin, Ballinasloe ... £5,749

Dartford.—Fire precautionary works at Southern hospital, for the London C.C.:—

Bridge & Co., Ltd. ...	£19,367 0 0
Wm. F. Blay, Ltd., Dartford ...	18,999 0 0
W. Mills & Sons, Ltd. ...	17,796 0 0
W. J. Dixon & Sons ...	17,502 16 6
Thomas & Edge, Ltd. ...	15,970 0 0
Vigor & Company (Poplar), Ltd. ...	15,500 10 0
Edwards Construction Co., Ltd.	15,466 16 4
Hill & Gurr, Bromley ...	13,635 0 0
Wm. Harbrow (1928), Ltd. ...	12,905 0 0
*E. Proctor & Sons, Rockmount-road, Plumstead, S.E.18 ...	12,678 6 9

(Architect's estimate: £15,679.)
(Remainder of London.)

Dowra.—Reconstruction of the Courthouse and guards' barracks, for the Cavan C.C.:—

John O'Rourke, Crossboy, Dromahair ...	£3,875 12
F. J. M'Avinia, Ballinamore ...	2,370 0
*Michael Loughlin & W. E. Moran, Drumristan, Dowra ...	2,193 0

Drumnadrochit.—Widening the bridge on the Glasgow-Inverness-road, for the Inverness-shire C.C. Mr. R. Bruce, Supervising Engineer, Station-square, Inverness:—
*A. M. Carmichael, Edinburgh ... £5,400

Duagh.—Reinforced concrete bridge, for the Kerry C.C.:—

Buttimer & Co. ...	£7,599
*Patrick Keane, Liselton ...	7,160

Eccleshill.—Alterations and additions at the "Ring o' Bells" hotel. Mr. Wm. Illingworth architect:—
*M. Booth & Sons.

Farnworth.—Showrooms, fitting-rooms, offices, in Market-street, for Messrs. Montague Burton, Ltd., Hunslet Woollen Mills, Hudson-road, Leeds. Mr. Harry Wilson, architect, 81, North-lane, Roundhay, Leeds:—
Builders—*William Townson & Sons, Ltd., Bolton.
Plumbing and glazing—*W. Marshall, Bolton.
Steelwork—*John Booth & Sons, Ltd., Bolton.
Plasterer—*W. H. Cadman & Sons, Ltd., Swinton, Lancs.

Gateshead.—152 houses, for the T.C.
*W. E. Hall & Son, Low Fell.

Glasgow.—Eight-story building in Vincent-street, for Messrs. G. & J. Coats, Ltd., of Paisley. Mr. James Miller, R.S.A., architect, Blytheswood-square:—
Demolition, excavation, brick and mason works—*Thaw & Campbell, Paton-street, Dennistoun.
Joiner work and ironmongery, etc.—*John Cochrane's Trustees, North Woodside-road.
Plumber work, etc.—*William Anderson (Glasgow), Ltd., 133, Wellington-street.
Plaster work, etc.—*George Rome & Co. (Glasgow), Ltd., 313, West George-street.
Tile work, etc.—*J. London & Son, Ltd., 131, West Regent-street.
Terrazzo work, etc.—*Toffolo, Jackson & Co., Ltd., 110, West Regent-street.
Metallic windows—*The Crittall Manufacturing Co., Ltd., 26, Royal Exchange-square.
Rubber floor—*Charles McIntyre & Co., Ltd., 76, Milton-street.
Lintile floors—*Rowan & Boden, 25, West George-street.
Steel structural works, etc.—*Redpath, Brown & Co., Ltd., 29, Waterloo-street.
Glazier work, etc.—*J. McPhee, 76, Great Western-road, Hillhead, Glasgow.
(All of Glasgow.)

Glasgow.—Tenement of flats at the corner of Observatory-avenue and Byars-road, Hillhead. Messrs. J. Baird & J. Thomson, architects, Holland-street:—
Mason and brickwork, etc.—*Jackson, Brown & Co., Ltd., 98, Bath-street.
Steel and cast-iron work—*G. & W. McLellan, Ltd., 29, Argyll-street.
Slater work, etc.—*A. & D. McKay, Douglas-street.
Steel sashes—*Henry Hope & Co., 1, Blytheswood-square.
Tile work, etc.—*Galbraith & Winton, Ltd., Douglas-street.
Joinery and ironmongery work, etc.—*W. Allan & Cowan, 27, Seamore-street.
Plaster work, etc.—*W. Tounar & Son, 198, North-street.
Glazier work, etc.—*W. Purdon & Son, Ltd., George-street.
(All of Glasgow.)

Glasgow.—Extensions at 52, London-road, Bridgeton, Glasgow, for Messrs J. Fisher & Son (Glasgow), Ltd., 36, London-road. Mr. Will J. B. Wright, architect, 1, Blytheswood-square:—
*Robert Gilchrist & Sons, Ltd., New-street, Calton, Glasgow.

Glasgow.—Construction of a sewer from Pollockshaws to Thornliebank, for the Corporation:—
*John Drysdale, 74, Bluevale-street, Bridgeton, Glasgow ... £28,243

Glasgow.—New roof over boiler-house at Woodside Asylum:—
*P. & R. Fleming & Co., 29, Argyle-street, Glasgow ... £155 14 6

Glasgow.—Plaster work at Garscadden school, for the T.C.:—

*W. Walker & Son (Glasgow), Ltd., 257, Eglinton-street, Glasgow £892 9 11

Glasgow.—Demolition work, new lodge house, waiting-rooms, etc., at Lambhill cemetery. Messrs. James Munro & Sons, architects, 134, Bath-street:—

*William Lightbody, 72, Sydney-street, Gallowgate, Glasgow.

Glasgow.—Alteration at Glasgow's Trade House, George-square. Ninian McWhannell, architect, 233, West Regent-street, Glasgow:—

*Thomas Cooper & Co., 89, Alexandria Park-street, Dennistoun, Glasgow.

Glasgow.—Store at 847, London-road, Bridgeton:—

*William McGibbon, 102, Duke-street, Dennistoun, Glasgow.

Godmanchester.—Improvement works to the River Ouse, for the T.C. and Ouse Drainage Board:—

Builders—
*John Gill, Ltd., Westminster £7,452
Steelwork—
*Ransomes & Rapier, Ipswich 3,391

Gravesend.—Ejector and chamber on Denton housing estate, for the T.C. Mr. F. T. Grant, M.Inst.M. & Cy.E., M.R.S.I., Borough Engineer and Surveyor, Gravesend:—

Hughes & Lancaster, Ltd., Westminster £1,301
*Jones & Attwood, Ltd., Stourbridge ... 1,142
Including silencer—
Tuke & Bell, Ltd., Lichfield 1,448
Single ejector and tubbing only—
Whitehead & Poole, Ltd., Manchester... 574
Adams Hydraulics, Ltd., York 700

Gt. Yarmouth.—Providing and laying approximately 15,500 super yds. of 2 in. single-coat asphalt and 3 in. two-coat asphalt, on prepared foundations, for the C.B. Mr. S. P. Thompson, Borough Engineer:—

*Constable, Hart & Co., Broadway-buildings, Broadway, Westminster, London, S.W.1.

Greenock.—Electrical installation in the Public Assistances Offices, Nicholson-street, for the T.C.:—

*Brodie & Hall, 2, Dock Breast, Greenock.

Guildford.—Erection of houses on part of Shepherd's Farm, Stoughton:—

*Franks, Harris Bros., Guildford £4,840 1 5

Hailsham.—Six houses in Station-road, for the R.D.C.:—

*T. Rich £2,490

Harrogate.—For work required in connection with erection of conveniences at Bilton Grange Council school, Harrogate, for the Corporation. Mr. C. F. Rivers, Borough Engineer, Municipal Offices, Wellhill, Harrogate:—

*W. Birch & Son, Harrogate ... £113 1 11

Harrow Weald.—Additions to Council school, for the Middlesex C.C. Mr. W. T. Curtis, F.R.I.B.A., County Architect, 10, Gt. George-street, S.W.1:—

J. Laing & Son, Ltd., London £3,540
A. & B. Hanson, Ltd., Southall 3,505
Y. J. Lovell & Son, Gerrards Cross 3,475
G. Challis & Co., Ltd., Brentford ... 3,459
C. Miskin & Sons, Ltd., St. Albans ... 3,440
G. Godson & Sons, Ltd., London 3,390
W. S. Try, Uxbridge 3,360
A. E. A. Prowting, Ltd., Ruislip 3,290
‡Fassnidge & Son, Ltd., Uxbridge ... 3,187

Hazlerigg.—Pithead baths at Hazlerigg, Northumberland:—

*Lough Bros. (Contractors), Ltd., 5, Higham-place, Newcastle-on-Tyne ..... (about) £14,000

Hendon.—Additions and new gymnasium at the County school, for the Middlesex C.C. Mr. W. T. Curtis, F.R.I.B.A., County Architect, 10, Gt. George-street, S.W.1:—

G. Groves & Son £12,689
Stevens & Sons 12,650
F. Cottrell, Ltd. 12,369
J. Laing & Son, Ltd. 12,305
H. Knight & Son 12,152
J. Stewart & Sons, Ltd. 12,130
W. Lawrence & Son, Ltd. 12,121
Albert Monk 11,975
Sims & Russell 11,870
‡G. Godson & Sons, Ltd., Kilburn-lane, W.10 11,670

(All of London.)

Henstead.—Housing, for the R.D.C.:—

Six houses—*K. & W. Blake, Rockland St. Mary £2,130 0
Pair of houses at Surlingham—*R. & W. Blake 694 0
Four houses, Back-lane, Hethersett—*H. H. Amos, Cringleford 1,335 10
Six pairs of houses at Poringland—*Evans & Sons, Old Catton, Norwich 4,037 0

Heworth.—Alterations and additions to the "Nag's Head" hotel, for Messrs. J. Smiths, Tadcaster Brewery Co., Ltd.:—

*W. Gresham.

Hoddesdon.—Demolition of property and erection of 6 houses at Lord-street, for the U.D.C. Mr. Wm. Plumpton, architect and surveyor:—

Sir William Prescott & Sons, Ltd., London £2,220
E. Button, Broxbourne 2,140
F. C. Sough, Sevenoaks 2,095
*W. W. G. Parker, High Ongar, Essex 2,082

Hull.—Extensions at Hymers College, for the E.C.:—

*R. G. Tarran, Hull £10,101

Inverness-shire.—Construction of Achnahannet to Brachla section of the Glasgow-Inverness-road, for the C.C. Mr. R. Bruce, Supervising Engineer, Station-square, Inverness:—

*A. M. Carmichael, Edinburgh £111,000

Kells.—18 houses, for the U.D.C.:—

*Andrew Doyle £4,302

Kilpatrick.—Medical officer's residence, for the South Tipperary Board of Health:—

W. P. Ryan, Thurles £1,782
James Nolan & Philip Brown, Cappawhite 1,670
R. T. Nolan & M. F. Hayes, Tipperary 1,660
*M. Condon, Ballinure, Thurles 1,556

Kingsclere.—Four houses at Headley, for the R.D.C.:—

G. Hopkins, Kingsclere £1,795
Cooke Bros., Ltd., Newbury 1,656
F. Knight, Headley 1,600
*Canning & Sargeant, Winnersh 1,550

Kingsclere.—Four Council houses at Penwood, for the R.D.C.:—

C. W. Tillett, Wash Water £1,860 0
G. Hopkins, Kingsclere 1,815 0
F. Knight, Headley 1,650 0
Canning & Sargeant, Winnersh ... 1,610 0
W. Ansell & Sons, Highclere 1,559 0
*Cooke Bros., Ltd., Newbury 1,527 10

Kingston-on-Thames.—For alterations and redecorations at electricity offices, 17, High-street, for the B.C.:—

*C. Oldridge & Sons, Ltd. £837

Kingston-upon-Hull.—Elementary school (first portion) on the Endyke estate, Endyke-lane, for 400 pupils, for the T.C. Mr. L. Harvey, A.R.I.B.A., City Architect:—

*City Engineer £14,958

(In lieu of tender withdrawn.)

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Lambeth.—For the erection of 96 dwellings on the Cottington-street housing scheme, for the B.C.:—

	Materials any source	Empire materials
Mulcrone & Gough, Stanmore	£56,197	£56,625
S. E. Moss & Sons, Chelmsford	53,514	53,514
Henry Knight & Son, Tottenham	52,131	52,131
Corolite Construction, Ltd., W.C.2	51,361	51,654
W. J. Marston & Son, S.W.6	49,593	49,593
Eadie Towers & Co., Wolverhampton	47,940	48,180
John Crewdson, Horley	47,060	47,040
F. & H. F. Higgs, Ltd., Herne Hill	46,960	46,960
Rowley Bros. (1929), Ltd., N.17	46,900	46,990
G. Bollom & Sons, Ltd., Acton, W.3	46,777	46,777
W. J. Simms, Sons & Cooke, Ltd., Nottingham	46,165	46,165
Wilson, Lovatt & Sons, Ltd., Wolverhampton	45,787	45,853
G. Miskin & Sons, Ltd., St. Albans	45,200	45,328
R. J. Rowley, Ltd., N.17	45,155	45,425
Hill & Gurr, Bromley	43,802	44,282
*Gee Walker & Slater, Ltd., S.W.1	43,362	43,362

Leeds.—Extensions to the branch depot in Lady Pit-lane, for Messrs. Ringtons, Ltd., Newcastle-on-Tyne:—

*P. Rhodes, Ltd.

Leitrim.—Repairs to the fever hospital at Carrick, for the Leitrim County Board of Health:—

*B. McDermott, Carrick-on-Shannon £1,695 9

Liverpool.—Repairs to 24-34, Woolton-street and 2-4, Back Woolton-street, for the T.C.:—

*G. Jones & Son, Everton-road, Liverpool £209

Liverpool.—Widening of the bridge carrying Edge-lane over the L.M.S. Rly., for the T.C.:—

‡T. Wrigley, Ltd., Manchester ... £5,388 17 9

Liverpool.—Widening and reconstruction of the bridge carrying Walton Vale over the Cheshire Lines Rly., for the T.C.:—

‡F. Morton & Co., Ltd., Garston ... £13,888

Liverpool.—1,833 yds. of wrought-iron railings and three pairs of gates in Springwood-avenue, for the T.C.:—

*W. Gratrix & Sons, Walkden £1,314

Liverpool.—Elementary school on the Highfield estate, Broadgreen, for the T.C.:—

*J. Lewis £52,769

Liverpool.—Elementary school on the Abingdon-road site, for the T.C.:—

*Tysons (Contractors), Ltd. £9,164

Liverpool.—School on the Formosa-drive site, for the T.C.:—

*Tysons (Contractors), Ltd. £7,548

Liverpool.—512 lin. yds. of galvanised corrugated iron railings, together with three pairs of gates, for use in connection with the widening of Beauclair-drive, for the T.C.:—

*W. A. Parker & Co., Workington ... £348 12

Liverpool.—Alterations to 41 and 43, Harrington street, for the T.C.:—

*Tysons (Contractors), Ltd., Dryden-street, Liverpool £3,282

(In lieu of previous tender.)

Liverpool.—For 2 B.N. 950 type houses and 26 A.S.828 type houses on the Springwood estate, for the T.C. Director of Housing:—

*C. J. Doyle, 15, Victoria-street, Liverpool £10,764

Liverpool.—Extension of the verandahs at the Alder Hey Hospital, for the T.C. Land Steward and Surveyor:—

*C. & G. L. Desoer, Ltd., Liverpool ... £758

Liverpool.—Reconditioning roof lights in the museums, for the T.C. Land Steward and Surveyor:—

*Robert Myles, Ltd., 30 and 32, Bridport-street, Liverpool £262 7 4

Liverpool.—Tiling of the main kitchen, meat larder, bread store, passage and store room, and plastering duty room at the Belmont-road Institution, for the T.C. Land Steward and Surveyor:—

*G. Swift, Liverpool £805 4 10

Liverpool.—Painting houses, for the T.C. Director of Housing:—

1,344 *houses*—
*J. Wilkinson, 6a, Lowther-street, Liverpool £2,732 0
281 *houses*—
*R. & J. Tilley, 41, Oriel-road, Bootle 575 5

Liverpool.—180 lin. yds. of wrought-iron railings for use between the grounds of the Dingle Tip and the Turner Memorial Home, for the T.C.:—

*Francis Morton & Co., Ltd., Garston £118

London.—Alterations to the Lots-road pumping station in connection with the increased pumping power to be provided at that station, for the L.C.C.:—

John Mowlem & Co., Ltd. ... £31,183 5 10
Balfour, Beatty & Co., Ltd. ... 28,514 11 5
W. O. Everitts, Ltd. 28,412 10 0
*Charles Brand & Son, Millbank House, 2, Wood-street, S.W.1 28,250 18 1

(Chief Engineer's estimate: £23,073 17s. 6d.)

(All of London.)

London.—Tenders accepted by H.M.O.W. for the week ending May 2:—

Cheadle Hulme T.E.—adaptations—Ogden Brothers, 849, Middleton-road, Oldham.

Glasgow Central E.E. and I.R.O.—heating—J. Combe and Son, Ltd., 103, North Hanover-street, Glasgow.

Hollinwood H.M.S.O.—erection of new roof over canteen block—Samuel Ashton (Oldham), Ltd., Plato-street, Westwood, Oldham.

Yeovil Post Office—erection—Hayward & Wooster, Ltd., Walcote-street, Bath.

Islington B.P.O.—alterations—Higgs & Hill, Ltd., Crown Works, South Lambeth-road, S.W.8.

South Cliff B.P.O., Scarborough—adaptations—Snowdon Brothers Carlton-road, Filey.

Hastings S.S.O.—steel casements and lantern lights, etc.—Doodson & Bain, Ltd., Cornwall-street, Openshaw, Manchester.

Clapham Common B.P.O.—alterations and additions—Lamerton & Norris, 79, Crystal Palace-road, East Dulwich, S.E.22.

London.—Additional heating and hot water supply apparatus and gas services, and hot and cold storage plant at Archway hospital, Highgate (pathological block), for the L.C.C.:—

W. G. Cannon & Sons, Ltd.	£1,154
Buckleys London), Ltd.	1,139
G. N. Haden & Sons, Ltd.	1,125
Saunders & Taylor, Ltd.	1,078
*The Brightside Foundry & Engineering Co., Ltd., Chicheley-street, Belvedere-road, S.E.1	1,077

(Chief Engineer's estimate: £1,150.)

(All of London.)

London.—Building work in connection with the provision of an electric bed lift at St. George-in-the-East hospital, for the L.C.C.:—

Fred & T. Thorne	£1,300
John Marsland & Sons, Ltd.	1.298
George Barker	1,295
R. Woollaston & Co.	1,254
*Vigor & Co. (Poplar), Ltd., King-street and Pennyfields, Poplar, E.14	1,240

(All of London.)

London.—Installation of heating, hot water, kitchen, laundry and water softening apparatus, etc., at Sheffield-street hospital, for the L.C.C.:—

Richard Crittall & Co., Ltd.	£2,098
J. Jeffreys & Co., Ltd.	2,050
W. G. Cannon & Son, Ltd.	1,998
Ashwell & Nesbit, Ltd.	1,961
Brightside Foundry & Engineering Co., Ltd.	1,937
The Fretwell Heating Co.	1,895
Buckleys (London), Ltd.	1,752
Saunders & Taylor, Ltd.	1,707
Richard Whittington & Co., Ltd.	1,634
*H. J Cash & Co., Ltd., Caxton House, Westminster, S.W.	1,634

(Chief Engineer's estimate: £2,050.)

(All of London.)

London.—Provision of accommodation at Brook ambulance station, for the L.C.C.:—

Edwards Construction Co., Ltd.	£5,013 0
Harry Groves & Son	4,993 0
Thomas & Edge, Ltd.	4,935 0
W. Mills & Sons (Builders and Contractors), Ltd.	4,821 0
Cole, Loasby & Co., Ltd.	4,245 0
Bridge & Co., Ltd.	3,900 0
G. H. Diblin, Dartford	3,830 0
H. J. Taylor	3,694 0
Thomas D. Leng	3,642 0
A. Black & Sons, Newport-works, 96, Perry Vale, Forest-hill, S.E.23	3,410 5

(Architect's estimate: £3,725.)

(All of London.)

London.—The following works contract has been placed by the War Office the week ended April 30:—

Catterick, roof repairs—
*Ruberoid Co., Ltd., London, W.C.

Longford.—20 houses near Ward's-terrace, for the U.D.C.:—

Ennis, Mullingar	£6,891 0
*Patrick Smith, Ballinalee	5,873 3

Loughborough.—Residential hall in the college grounds, also a hydraulic laboratory on the Ashley-road playing fields, for the Board of Management of college. Captain Ernest G. Fowler, F.R.I.B.A., architect, County Education Offices, Greyfriars, Leicester:—

Foundations—*Wm. Moss & Son, Ltd., Queen's-road, Loughborough.

Low Fell.—300 houses and bungalows at Low Fell. Mr. J. W. Corking, architect, 6, West-street, Gateshead:—

*E. R. Calderwood, Low Fell.

Lytham St. Annes.—Branch bank at Cartmell-road, Fairhaven, for the District Bank, Ltd., 15, Spring-gardens, Manchester. Messrs. Francis Jones & H. A. Dalrymple, F. and A.R.I.B.A., architects, 178, Oxford-road, Manchester:—

*J. Sutcliffe & Sons (Builders), Ltd., St. Annes-on-Sea.

Maldon.—Additional dressing accommodation for men and women at the bathing-pool slope of the bath wall on the Marine Lake, for the T.C.:—

*F. S. Smith, Beeleigh-road, Maldon £295 13

Malmesbury.—12 houses at Sherston, for the R.D.C.:—

*Wallis & Co., Wotton Bassett £3,834

Manchester.—Alterations to 250, Upper Chorlton-road, Seymour-grove, West Point, for the District Bank, Ltd., 15, Spring-gardens. Messrs. Francis Jones and H. A. Dalrymple, F. and A.R.I.B.A., architects, 178, Oxford-road, Chorlton-on-Medlock:—

*Moston Brick & Building Co., Ltd., Moston, Manchester.

Manchester.—Alterations, etc., to branch bank, 250, Upper Chorlton-road, Seymour-grove, West Point, for District Bank, Ltd., 15, Spring-gardens. Messrs. Francis Jones & H. A. Dalrymple, F. & A.R.I.B.A., architects, 178, Oxford-road, Chorlton-on-Medlock:—

*Moston Brick & Building Co., Ltd., Manchester.

Manchester.—90 houses, construction of roads and sewers off Ayres-road and Gifford-road, Old Trafford. Mr. J. Dalby, architect, 9, Gainsborough-avenue, Cotton-lane, Withington:—

*Sparke & Stephens, Withington, Manchester.

Market Bosworth.—Laying of about 60 yds. of stoneware pipe sewer, 9-in. dia. and construction of sewage outfall works in parish of Ratby, for the R.D.C. Messrs. Pick, Everard, Keay & Gimson, engineers, 6, Millstone-lane, Leicester:—

*R. A. Davies, 61, Gillhurst-road, Harborne, Birmingham £3,369

Market Rasen.—Improvements to the Council school for the Lindsey E.C. Mr. H. G. Gamble, F.R.I.B.A., County Architect, Bank-street-chambers, Lincoln:—

F. Hossack & Son, Ruskington	£690 0
Ingram Bros., Louth	634 0
Thornhill Bros., Lincoln	572 0
E. Swaby, Market Rasen	564 17
A. E. Thornhill, Lincoln	563 0
T. Sutton & Sons, Market Rasen	532 10
W. A. Major, Sturton-by-Stow	520 0
J. Tuxworth & Sons, Louth	503 0
†Scupham & Son, Market Rasen	482 10

Markyate.—20 cottages and two shops in High-street. Mr. B. B. Franklin, F.S.I., architect and engineer, 35, King-street, Luton:—

	Road.	*Buildings.*
Griffiths, Ltd., Wembley	£2,181	£13,573
Winter & Son, Harpenden	648	10,700
B. C. Reeve, Harpenden	615	10,549
Summerfield & Son, Dunstable	850	9,375
J. Saunders & Son, Luton	807	9,050
J. T. Garrett, Luton	806	8,912
E. Pryer, Luton	803	8,699
H. C. Janes, Ltd., Luton	790	8,450
F. J. W. Janes, Ltd., Luton	699	8,440
Robinson & White, Dunstable	—	8,428
H. Fidler & Sons, Luton	719	8,245
†H. W. G. Goddard, Toddington	—	7.572
G. Powdrill & Son, Toddington	699	—
Arthur Neale, Markyate	688	—
F. Bracey (Roads), Ltd., Watford	650	—

Newbury.—76 houses on the London-road housing site, for the T.C.:—

*Building and Public Works Construction Co., of Swindon £23,952

Newcastle-upon-Tyne. — 3 chimneys for the Dunston power station, for the Electric Supply Co., Ltd.:—

Sir Robert McAlpine & Sons, Newcastle £22,400

Newry.—Installing one pair of steel gates at Victoria Lock, for the U.D.C.:—

The Motherwell Bridge & Engineering Co., Ltd., Motherwell	£8,050
Sir William Arrol & Co., Ltd., Glasgow	7,510
Head, Wrightson & Co., Ltd., Thornaby-on-Tees	7,325
*Vickers-Armstrongs, Ltd., London	6,968

Northampton.—Painting work at the Harborough-road hospital, for the C.B.:—

*A. G. Cowling £610

Northamptonshire.—For (*a*) elementary school at Boughton, (*b*) installation of accelerated low-pressure hot water system at Weston Favell school, for the E.C. Mr. George H. Lewin, L.R.I.B.A., County Education Offices, Northampton:—

(*a*) †C. Adams & Co., Wellingborough... £2,790
(*b*) †Seaton & Peet, Ltd., Northampton 1,368

Paignton.—One block of 6 houses of the parlour type and one block of 6 houses of the non-parlour type, on the Collaton housing estate, for the U.D.C.:—

*L. R. Stubbs, Torquay.

Peebles.—16 houses on Kingsland site, for T.C. Mr. A. H. Swanson, Borough Surveyor:—

Mason work—			
*J. H. Pierce, Dunbar	£856	0	0
*T. Tod & Co., Peebles	871	0	0
Joiner work—			
*Cochrane Bros., Ltd., Bo'ness	1,392	13	8
Slater work—			
*W. Fairbairn & Sons, Peebles	291	0	0
Plumber work—			
*W. Fairbairn & Sons, Peebles	152	10	0
*J. Hogg, Peebles	479	1	4
Plaster work—			
*L. Grandison & Son, Peebles	564	0	0
Painter work—			
*P. Lavin, Peebles	102	8	0

Peterborough.—50 houses on the Fulbridge-road estate, adjoining St. Paul's-road, for the T.C. Mr. W. H. A. Court, City Engineer and Surveyor:—

J. W. Barber, Stanground, nr. Peterborough	£18,800
Reed Bros., Grantham	18,307
A. Pettit & Sons, Ramsey	18,000
*Thos. Ellington & Son, Lincoln-road East, Peterborough	16,999

Peterborough.—38 houses on the Park-lane estate, West Side, for the T.C. Mr. W. H. A. Court, City Engineer and Surveyor:—

A. Pettit & Sons, Ramsey	£12,350
Reed Bros., Grantham	11,900
J. W. Barber, Stanground, nr. Peterborough	11,362
*Thos. Ellington & Son, Lincoln-road East, Peterborough	10,925

Pontefract.—Municipal offices with frontage to Headlands-road, for the Corporation. Messrs. Tennant & Smith, architects, Ropergate:—

Building work—†Brown & Lodge.
Asphalter—†Tunstall's Rock Asphalte Co., Ltd.

Ramsgate.—New classrooms and masters' accommodation at St. Lawrence junior school. Colonel S. H. Page, F.S.I., architect, 6, Queen-street:—

Hayward & Paramor, Folkestone	£6,729
George Browning, Canterbury	6,545
T. T. Denne, Walmer	6,497
Grummant Bros., Ramsgate	6,176
Reg. Elliott & Co., Margate	6,020
*W. W. Martin, Ramsgate	5,872

Redcar.—Rebuilding the Stockton hotel. Messrs. J. Oswald & Son, architects, Worswick-street, Newcastle:—

*W. Jackson, 5, Audley-road, Gosforth, Newcastle-on-Tyne.

Rhyl.—Extensions and new vestries, etc., to St. Anne's Church. Messrs. L. W. Barnard & Partners, architects, 47, Promenade, Cheltenham:—

*Roberts & Sloss, Prestatyn £1,998

Rochdale.—260 houses, roads and sewers on Belfield Hall estate, for the T.C. Mr. S. H. Morgan, Borough Surveyor:—

†R. & T. Howarth, Rochdale.

Scarborough.—Alterations and conversion of former trading bazaar into three shops and offices over in Westborough, for Mr. W. E. Harland, Huntriss Row:—

*Sinclair & Sons, Scarborough.

Seghill.—Senior Council school to accommodate 320 scholars, for the Northumberland C.C. Mr. W. W. Tasker, County Architect, 17, Claremont-place, Newcastle-upon-Tyne:—

*J. J. Robson, Back Park-road, Blyth £14,899

Shardlow.—375 yds. of 6-in. concrete tube or stoneware pipe sewers with manholes and other appurtenant works, also 1,470 yds. of 12-in. pipe effluent drain, air compressor house and ejector chamber, etc., for the R.D.C. Messrs. Elliott & Brown, engineers, Burton Buildings, Parliament-street, Nottingham:—

*A. Mason, Mansfield.

Shardlow.—Sewerage and sewage disposal works at Shardlow and Ashton-upon-Trent, for the R.D.C. Messrs. Elliott & Brown, chartered civil engineers, Burton-buildings, Parliament-street, Nottingham:—

H. H. Barry, Radcliffe-on-Trent	£35,600 0 0
A. H. Price & Co., Ltd., Nottingham	32,455 9 9
J. E. Jervis, Ltd., Long Eaton	31,793 0 0
Thomas Beighton, Chesterfield	30,858 10 5
G. F. Tomlinson & Sons, Ltd., Derby	29,856 0 0
Bentley & Wardman, Bradford	29,220 15 9
*David Roberts & Son, Ltd., Nottingham-road, Ilkeston	28,654 2 0

Southall.—Additions to Western-road Council school, for the Middlesex C.C. Mr. W. T. Curtis, F.R.I.B.A., County Architect, 10, Gt. George-street, S.W.1:—

William Lacey, Hounslow	£8,050
J. Woollard & Sons, Ltd., Acton	7,973
Ferris Bros., Acton	7,667
Y. J. Lovell & Son, Gerrards Cross	7,665
A. & B. Hanson, Ltd., Southall	7,620
W. J. Dickens, Ealing	7,590
G. Challis & Co., Ltd., Brentford	7,497
G. Rollom & Sons, Ltd., Acton	7,250
W. S. Try, Uxbridge	7,235
‡Fassnidge & Son, Ltd., Uxbridge	7,139

Southgate.—New Council school in Chase-road, for the Middlesex C.C. Mr. W. T. Curtis, F.R.I.B.A., County Architect, 10, Gt. George-street, S.W.1:—

G. Groves & Son	£32,100
Sims & Russell	32,098
L. & W. Whitehead, Ltd.	31,984
J. Stewart & Sons, Ltd.	31,841
G. Godson & Sons, Ltd.	31,840
Albert Monk	31,730
C. J. Newby & Bros.	31,680
W. Lawrence & Son, Ltd.	31,678
A. Fairhead & Sons, Ltd.	31,521
‡H. Knight & Son, Tottenham	31,490

(All of London.)

South Shields.—New fire station and extensions to the existing police buildings in West Keppel-st., for the Corporation. Messrs. T. A. Page & Son, architects, King-street:—

*Gustavus Bailey, Ltd.

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Southam.—For (*a*) 24 houses at Southam, and (*b*) 16 at Fenny Compton, for the R.D.C.:—

(*a*) *A. Hall, Stoke, Coventry £10,520
(*b*) *E. L. Woodward, Coventry 6,997

Stockport.—Premises at the corner of Princes-street and Bridge-street on site of "Red Lion" Hotel, for Messrs. Montague Burton, Woollen Mills, Hudson-road, Hunslet, Leeds. Mr. Harry Wilson, architect, 81, North-lane, Roundhay, Leeds:—

*W. Townson & Sons, Ltd., Bolton.

Stretford.—Construction and equipment of wash-house in Carriage-street, off Cornbrook-street, Old Trafford, for the U.D.C. Mr. Percy Howard, A.R.I.B.A., architect, 88, Mosley-street, Manchester:—

General building—*R. Carlyle & Co., Ltd., Old Trafford, Manchester.

Steam-raising plant—*Saunders & Taylor, Ltd., Trafford Park, Manchester.

Uckfield.—Seventeen houses at Crowborough, for the R.D.C.:—

*W. H. Green & Sons, Portslade £6,077

Uxbridge.—Transmitting station, for H.M. Air Ministry:—

*W. S. Try, High-street, Cowley, near Uxbridge.

Wandsworth.—For painting externally on 176 houses and flats on various estates, for the B.C.:—

*W. F. Goodchild £534 14

Wandsworth.—For improvements to the exit accommodation at the Wandsworth baths hall, for the B.C.:—

*R. A. Verrell, Ltd. £555

Ware.—Thirty houses at Stanstead Abbotts, for the R.D.C.:—

A. E. Guest, Ltd., Croydon £10,597 10
*W. G. Parker, High Ongar 9,275 0

West Hartlepool.—Infectious diseases hospital, for the T.C. Mr. F. Durkin, Borough Engineer:—

*E. M. Tweddle, Ltd., West Hartlepool.

(Estimated cost £35,000.)

Wigan.—Conversion of premises at the old Education Offices, Standishgate, for Messrs. Marks & Spencer, Ltd., Chiswell-street, London, E.C.2:—

*Bovis (1928), Ltd., 43, Upper Berkeley-street, London, W.1.

Witham.—Six pairs of semi-detached, non-parlour type houses on Cocks Farm estate, for the U.D.C. Mr. G. Ogden, surveyor:—

*W. Wager & Son, Witham.

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Whitley Bay.—Reconstruction work at the "Ship Hotel." Messrs. J. Oswald & Son, architects, Worswick-street, Newcastle:—

*R. Carse & Son, Ltd., 61, High-street, Amble.

Wortley.—152 houses, for the R.D.C.:—

Mortomley-Chapeltown, 42 houses—
*W. Marlow & Sons, Hillsborough, Sheffield £13,200
Oughtibridge, 28 houses—
*J. W. Bailey, Sheffield 7,472
Stannington, 20 houses—
*W. Marlow & Sons 5,500
Ecclesfield, Knoll-road, 24 houses—
*W. Memory, Swallownest 6,191
Loxley, 14 houses—
*J. W. Bailey 4,416
Ecclesfield, Yew-lane, 12 houses—
*W. Memory 3,132
Grenoside, 12 houses—
*W. Memory 2,588

Wrexham.—Houses, for the T.C.:—

55 houses at Maesydre—
*Griffiths Bros., Rhos £17,943
24 flats at Maesydre—
*T. Evans, Poolmouth, Stansty 4,668
13 houses in Benjamin-road—
*T. Evans, Poolmouth, Stansty 4,853
14 houses at Saxon-street—
*Edward W. Gittins & Sons, Aberderfyn 4,627

York.—Public conveniences on St. George's Field, for the T.C.:—

*J. T. Wailes £1,611 19 9

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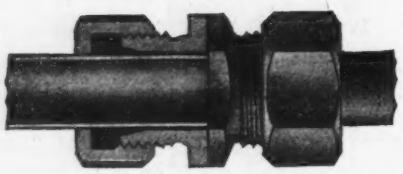

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